CMHS *Center for Mental Health Services*

Mental Health, United States, 1996

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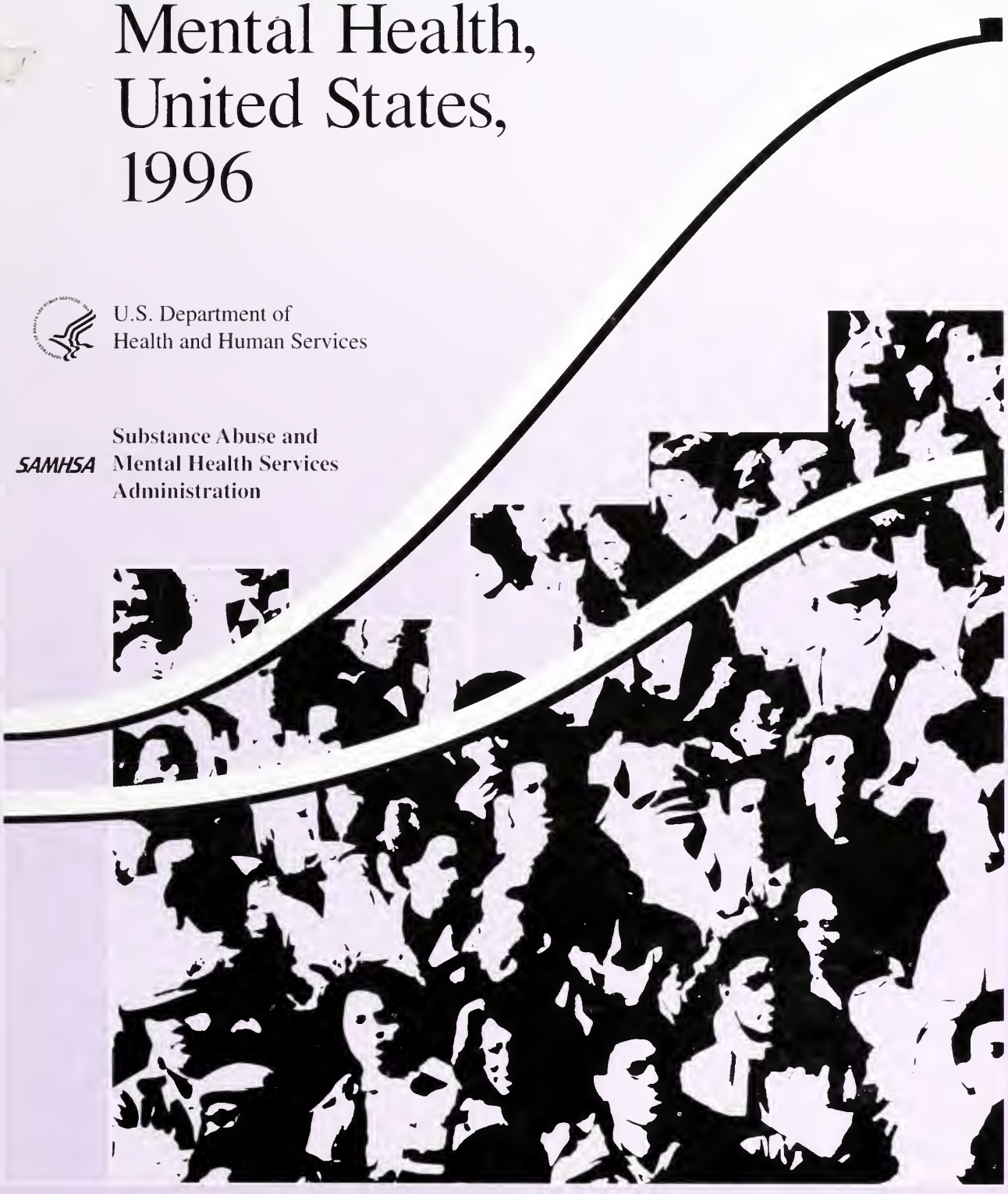

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Edited by
Ronald W. Manderscheid, Ph.D.
and
Mary Anne Sonnenschein, M.A.

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5600 Fishers Lane
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Disclaimer

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Foreword

This seventh edition of *Mental Health, United States* provides summaries of statistical information on topics that will be of concern in health care reform. Chapters on managed care include policy considerations, lessons learned from behavioral managed care approaches, the status of managed behavioral health care in America, and behavioral health care in HMOs. Other chapters provide mental health epidemiological data for adults and children, information on mental health in Medicare and Medicaid programs, mental health services in rural areas, and data on mental health providers. Most chapters cover topics not included in previous editions.

Special thanks are due to the many individuals in the mental health field who compile and report statistical data each year. Similar thanks are due to all who contribute to the development and implementation of the collaborative and voluntary Mental Health Statistics Improvement Program and National Reporting Program for Mental Health Statistics, two important Center for Mental Health Services programs. Without their efforts, this text would not be possible.

Bernard S. Arons, M.D.
Director
Center for Mental Health Services

Executive Summary

The mental health world continues to change rapidly in the United States in response to the development and evolution of managed care. Currently, almost two-thirds of persons with mental health insurance are covered under managed care plans, and almost four-fifths of the States are implementing changes in their Medicaid programs that will impact upon mental health service delivery. A transformation of this magnitude, equivalent to deinstitutionalization of a generation ago, deserves careful analysis. This volume of *Mental Health, United States* seeks to offer analyses and information that will guide the current discussion regarding managed care.

Chapters 1 through 4 are intended to provide essential context on the application of managed care within mental health; Chapters 5 and 6, information on the magnitude of the adult and child and adolescent populations with serious disorders, a necessary step in the identification of risk pools for managed care; and Chapters 7 through 10, an overview of organized mental health services, Medicaid, and human resources in mental health, each of which represents a different type of benchmark for managed care.

David S. Mechanic presents an excellent introduction to the topic of managed care in Chapter 1. From the context of managed care structures and strategies, Mechanic proceeds to investigate the policy considerations of performance, impact upon professional practice, care for persons with severe and persistent mental illness, regulation, and the positive potential of managed care for mental health. He concludes with cautions about recognizing the diversity of managed care approaches, and the need to explore mature managed care models.

In Chapter 2, Ronald W. Manderscheid and Marilyn J. Henderson offer a further characterization of managed care. They begin with information on the magnitude of managed care in mental health, a typology of managed care approaches, and a description of the waivers for managed care being implemented under the Medicaid program. Federal and State developments that relate to managed care are summarized. In general, Federal developments focus on cost containment and accountability, while State developments seek to constrain some perceived negative effects of managed care. Manderscheid and Henderson then describe some likely future directions for managed care. They conclude with a discussion of the need to evolve system and clinical protocols for managed care, including appropriate vehicles to measure outcomes, so that quality can be determined on the basis of the care delivered, rather than solely on price.

Ira S. Lourie, Stephen W. Howe, and Linda L. Roebuck report a qualitative analysis of two managed care firms in Chapter 3. This chapter is unique in the *Mental Health, United States* series, since the information presented is based solely upon observation of the two firms, an anthropological approach to data collection. With special consideration of children and adolescents with serious emotional disturbance, the authors analyze the two firms in terms of the basic concepts of managed mental health care, the operational philosophy, managed care practice, and barriers to managed care potential.

Chapter 4, by Thomas H. Dial and colleagues, provides an analysis of behavioral health care in health maintenance organizations (HMOs), based upon results from a survey. The authors start with a description of how HMOs are organized, how providers are compensated, and physician participation in these organizations. They then present staffing ratios for physician and nonphysician providers. A focus of the chapter is the descriptive information presented on mental health benefits and utilization in HMOs.

Chapters 5 and 6 provide status reports to the field on work undertaken by the Center for Mental Health Services (CMHS) to define the populations, and then to measure the prevalence of adults with serious mental illness and children and adolescents with serious emotional disturbance. Public Law 102-321, the legislation creating CMHS, mandated that this work be undertaken to provide the States with measurement approaches for planning. In the context of managed care, this work provides an introduction to the key concept of risk pools.

In Chapter 5, Ronald C. Kessler and colleagues present an overview of the definition for adults with serious mental illness (SMI), and of the methods used to derive national and State population estimates. The authors then describe the 12-month prevalence of SMI, the co-occurrence of SMI and substance abuse disorders, and sociodemographic correlates of SMI. Of particular note in this chapter is the description of severe and persistent mental illness (SPMI) as a subset of SMI.

In Chapter 6, Robert M. Friedman and colleagues outline the definition of children and adolescents with serious emotional disturbance (SED) and the operational procedures through which the prevalence of this population can be estimated. Findings from a range of data bases are reviewed using this operational definition. Like the approach presented for adults in Chapter 5, these authors also distinguish youth with serious emotional disturbance and extreme functional impairment from other youth with a serious emotional disturbance and substantial functional impairment.

Richard W. Redick and colleagues describe highlights about organized mental health services in 1992, as well as trend information for a twenty year period, 1972-92, in Chapter 7. This chapter updates trend information presented in every previous edition of *Mental Health, United States.* The authors examine availability of services, volume of services, staffing of mental health organizations, and financing of services. As a new feature this year, policy implications are examined for each of these topics. The chapter concludes with several graphical displays of service and financing data for the States.

In Chapter 8, Richard G. Frank and colleagues review developments in Medicaid managed behavioral health care. After a description of the rapid transformations being made in the Medicaid program, Frank and colleagues summarize enrollment in Medicaid managed behavioral health care carve out programs in 1995, together with brief program descriptions for the relevant States. The chapter continues with a case study for Massachusetts, in which service use and spending are examined by type of care between 1992 and 1994.

Harold F. Goldsmith and colleagues analyze changes in the geographical distribution of mental health services between 1983 and 1990, in Chapter 9. Service availability, volume, and geographical accessibility are compared across different types of counties, ranging from metropolitan counties that are part of major urban centers to non-metropolitan counties comprised of farms and small towns. Of particular note is the presentation of demographic and service information for the nation, and the problems of geographical accessibility to services in rural and frontier counties.

Chapter 10 updates human resource and training data from *Mental Health, United States, 1990* and *Mental Health, United States, 1992.* The chapter represents a collaborative endeavor among the major national associations concerned with human resources for mental health care. Peterson and colleagues present analyses of demographic and training characteristics, and professional activities for psychiatry, psychology, social work, psychiatric nursing, counseling, marriage and family therapy, psychosocial rehabilitation, school psychology, and sociology. Both national and State information are presented.

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Chapter 1

Key Policy Considerations for Mental Health in the Managed Care Era

David S. Mechanic, Ph.D.

Rene Dubos University Professor of Behavioral Sciences
Institute for Health, Health Care Policy, and Aging Research
Rutgers University
Supported by the Rutgers NIMH Center for Research on the Organization and Financing of Care for the Seriously Mentally Ill and by an Investigator Award in Mental Health Policy Research by the Robert Wood Johnson Foundation

Introduction

Managed mental health care in its various forms is growing rapidly, covering, in 1995, more than 100 million insured persons (Frank et al. 1995). Hundreds of organizations manage mental health and substance abuse services in various ways, but this industry is increasingly concentrated with three large firms: Value Behavioral Health; MEDCO Behavioral Care (now Merit); and Human Affairs International; covering 42 million enrollees in 1995 (Hiebert-White 1995). Risk-based contracting, where the managed care (MC) company provides and/or manages services, and assumes some of the risk for expenditures, is the most rapidly growing part of the MC sector (Frank et al. 1995), but utilization review and case management remain dominant aspects of such activities. Managed mental health care is now aggressively entering the public sector, with managed care companies contracting with States to develop networks for managed care of their Medicaid populations and other public mental health clients (Essock and Goldman 1995).

Despite the size and importance of the MC sector, we know little about it. Much of the existing literature contains either public relations efforts by the industry and its advocates, or polemics and anecdotes by its critics. There are many barriers to research in managed care, where financial stakes among competing actors involve billions of dollars (Mechanic 1996). Much information is regarded as proprietary, and access to the private sector is difficult. Good systematic research requires planning and data collection over several years, but MC is a customized product, sold to employers, and plans that vary a great deal from one context to another, and can change in important ways rather quickly, as firms develop new strategies, or purchasers modify their programs. MC products and the types of customized product sought, depend on the circumstances and needs of the purchaser, and there is much selective bias in who chooses what. Companies concerned about high costs, for example, have more aggressively embraced managed care. Adequate evaluation thus requires either randomization or strict multi-variate controls, which are difficult to achieve in the proprietary sector. Some large studies give us clues as to how MC compares with more traditional practices. But even large experiments and evaluations, like the RAND Health Insurance Experiment (Newhouse and the Insurance Experiment Group 1993), and the Medical Outcomes Study (Tarlov et al. 1989), typically have too few patients with serious mental illness, to identify clearly why performance varies within different MC arrangements, and among varying subgroups of patients. Research and evaluation become more practical in the public sector where State contractors can mandate that managed care providers cooperate in research, and provide specific types of information.

Managed Care Structures

Most discussions of MC assume that everyone understands what is being discussed, but MC includes a variety of structures, processes, and strategies. Most typically, MC refers to either health maintenance organizations (HMOs), or utilization management (UM). HMOs function under capitation (a predetermined payment for providing an established range of benefits over a specified period). UM includes a variety of strategies to monitor, review, and guide processes of care. These two types of MC can be combined or occur independently. In the mental health sector, the term "managed care" is also used sometimes to refer to treatment and rehabilitation programs that assume broad responsibility for patient needs, but operate within a budget, such as public programs in assertive community treatment (Stein 1989). Such programs are different from capitated practices, however, in that they are not held responsible for specific patients, and do not face the same type of financial risk as capitated programs in serving specific patient populations. Nevertheless, if such programs use their resources inefficiently, they may not have the needed resources to maintain their community staffing. As the MC sector has grown, managed care companies have offered a diverse menu of products that can be combined in many ways, including benefit design, employee assistance programs, networks of preferred providers, HMOs, and various types of utilization management programs. Managed care companies may contract to administer insurance programs and utilization management for an administrative fee, may accept responsibility for mental health and substance abuse services on a "carve out basis" in which they assume financial risk, or some combination of administrative and risk-sharing arrangements. It should be clear that MC refers to complex and varied arrangements.

There are also substantial differences within the HMO sector. There are at least four types of HMOs, with many variations within each type; but even small variations may have significant implications for performance. The traditional and most studied organization is the group model HMO, in which the plan contracts with a large multispecialty group on a capitated basis, to provide services exclusively to its insured population. The professional group is responsible for its internal process, and for distribution of income within the group, but the plan usually provides hospitals and other needed physical facilities. Twenty-seven percent of HMO members were in such groups in 1991 (Freeborn and Pope 1994, p. 21). Staff models, in contrast, hire the physicians who are typically salaried. Unlike group model HMOs, the physicians are not at financial risk (although there may be financial incentives affecting their behavior). The HMO, however, is a capitated organization, and is at risk. Physicians tend to dislike staff models, which threaten their concept as independent professionals, and such HMOs cover less than ten percent of the HMO population. Network models, a third type, contract with a number of groups of doctors who provide care for HMO patients at a capitated rate. These groups typically provide the facilities, and make provision for needed nonphysician staff. Typically, these groups are not exclusive HMO providers, may be part of the other HMO plans, and continue to serve fee-for-service patients as well. Independent Practice Associations (IPAs), the most rapidly growing HMO type, covered two-fifths of the HMO market in 1992 (Freeman and Pope 1994, p. 22). These HMOs contract on a capitation basis with individual physicians, who serve HMO patients in their own offices. Such physicians typically have a mixed practice, including fee-for-service patients, and often patients from more than one HMO. The IPA is particularly attractive to consumers because of the range of choice of physicians it offers, probably explaining why it is growing more than three times as rapidly as group model HMOs.

Although all four models share in common prepayment for medical care, they vary in major ways. The large group models, serving exclusive HMO populations, can organize their care, and make provision for services in a very different way than individual office-based physicians or small groups of physicians serving a diverse population. They can make use of nonphysician personnel more effectively, develop specialized services for prevention, chronic disease management, and health education, and develop sophisticated ways of monitoring their patient populations. They are also probably less adaptive and

accommodating than small practices, as they become more bureaucratized. A common problem of concern to patients is the scheduling of physician time, which often makes it difficult for patients in large group HMOs to see their primary care physician at short notice (Freeman and Pope 1994; Luft 1987; Mechanic 1975).

Two other types of innovations that are not HMOs: Preferred Provider Organizations (PPOs) and Point of Service (POS) plans, are increasingly combined with HMOs, making monitoring and evaluation even more complex. In PPOs, the insurance organization contracts with providers, who treat its enrollees at discounted rates. The POS is a variant of the PPO, in which prepaid enrollees have the option at any time of seeking services outside the plan, which are partially reimbursed. Some HMOs also include a POS option. The POS option is attractive to enrollees in HMOs and PPOs, who often are restricted to relatively few treatment choices. The option, however, is not frequently used by enrollees, probably because of the cost-sharing requirement. However, enrollees like the security of knowing they always have the option. The presence of complex alternatives and possibilities means that studies, even of HMOs, must give careful attention to specific provisions, and to utilization patterns outside the plan.

Managed Care Strategies

In its most simple sense, managed care refers to the practice of making informed judgments of what patients need, and then managing the treatment to insure that patients get necessary and appropriate care. Indeed, this has always been the model of good primary care, and it is hardly controversial. Managed care in the 1990s, in contrast, is different because its primary motive is to reduce expenditures by withholding services that are deemed unnecessary, and by substituting less expensive alternatives for more expensive treatments, such as inpatient care. In theory, it is difficult to quarrel with the notion that providers should seek to meet patients' needs in the most cost-effective way, and MC is basically a set of strategies to achieve this. But the fact that MC companies and capitated practitioners earn profits by withholding services, or substituting less expensive, for more costly care, raises suspicion of motives and behavior. In short, the debate about MC is largely a debate about trust, and the extent that people believe that companies, managers, and clinicians, operating under capitation limits and profit incentives in managed care, will manage in their best interests.

I focus on managed care approaches that involve issues of trust, primarily those strategies that have potential incentives for managers to withhold care, as in HMOs and in UM. Discussion of capitation approaches seeking primarily to improve the provision of mental health services, are reviewed in *Paying for Services* (Mechanic and Aiken 1989). Knowing the general designation of a program, as discussed above, is not particularly informative about its structure, processes, or incentives, although these are crucial to understanding performance. HMOs have very different capacities, leadership, philosophies, regulations, and quality assurance mechanisms. Many are for-profit, paying significant dividends to stockholders; others are nonprofit. For-profit plans are more likely than nonprofits to withhold significant remuneration from primary care physicians who are gatekeepers, returning these funds, if doctors stay within established remuneration targets (Hillman 1987). Given this diversity, it is difficult to generalize from one HMO context to another. We know a great deal more about the long established nonprofit, prepaid group practices like Kaiser Permanente, than we know about for-profit HMOs and IPAs, but it is the latter that is increasingly dominating the HMO marketplace.

Utilization management, similarly, is a complex set of strategies. UM usually consists of precertification of hospital admission, concurrent review of length of inpatient stays, and case management of high cost cases. Case managers may authorize services not included as part of the benefit package, to substitute for more expensive inpatient care. At its best, the UM case manager collaborates as a professional with the patient's therapist, working cooperatively to arrive at an effective and efficient treatment plan. Precertification may extend beyond inpatient care, to cover expensive diagnostic interventions like imaging procedures, or monitor the frequency and length of psychotherapy. UM is a set

of strategies that are easily tailored to meet the needs and wishes of the purchaser. Thus, such services can be combined with benefit design services, employee assistance programs, HMOs, preferred provider networks, and other organizational programs.

Knowing the structure of UM programs tells us little about processes, and how they are carried out in practice. Here there are a multitude of relevant questions, such as how certification is accomplished; the qualifications, special training and supervision of its practitioners; the access process and the extent to which clinicians are hassled; the quality of the standards established for alternative treatments; the opportunities for appeal and review; grievance processes; and many more. Also relevant are disclosure procedures, and the extent to which treatment criteria are public; the sophistication of quality assurance processes; and the extent that UM providers seek to assess their effectiveness.

Studying UM is difficult, and it is commonly assumed that research here cannot reach the same standards found elsewhere. Opportunities arise, however, which allow rigorous evaluation. Rosenberg and his colleagues, for example, studied New York City's fee-for-service health insurance plan, where half the enrollees whose requests were covered by UM, were subjected to sham reviews, where all care was automatically approved (Rosenberg et al. 1995). They demonstrated a modest, but significant, reduction in procedures in doctor's offices and hospital outpatient departments, that were not simply delays in treatment until the subsequent year. There were no significant differences in inpatient admissions in general, or for psychiatric or substance abuse admissions, nor were there differences in hospital length of stay. This study, of course, does not test the deterrent effect of UM, which may be substantial, but one can see readily how the introduction of a third comparison group, aware of the absence of UM, could have helped assess this effect.

Performance

The difficulty of assessing performance, given the complexity already described, should be clear. At its best, managed care strategies offer advantageous ways to develop broad and coordinated systems of care, to set priorities in terms of need and effectiveness of care, and to make thoughtful and cost effective tradeoffs among varying possible interventions. Many working in the mental health services area have been interested in capitation, because of its advantages in aggregating funds to develop a broad and coordinated system of services, because it assigns responsibility and accountability for specific patients, in contrast to vague populations like catchment areas, and, most importantly, because it encourages thoughtful tradeoffs among alternative services within the same budget (Mechanic and Aiken 1989). It is also believed that capitation covering both health and mental health services has the added advantage of achieving reductions in health care expenditures, when mental health needs are addressed, and makes it more likely that the neglected medical needs of many persons with psychiatric disorders are appropriately addressed. Exemplary of the positive view of the potential of MC was the Clinton health plan which stated that "a comprehensive array of services, along with the flexibility to provide such services based on individual medical and psychological necessity through effective management techniques, produces better outcomes and better cost controls than traditional benefits" (Bureau of National Affairs 1993).

On the other side are those who express concern about the growth of HMOs and UM, because they view the motivation as less to improve the effectiveness of care, and more to reduce costs. They see that MC has become a profitable industry, and that for-profit HMOs and managed care companies seek to increase their earnings and price on the stock exchanges, and pay significant dividends to their stockholders. They observe the development of incentives that put therapists' interests in conflict with providing services to their patients, and efforts to enroll primarily patients who are unlikely to have high medical care expenses. They worry that the procedures for denying services are often arbitrary, reflecting the desire to reduce expenditures, more than to improve patterns of care. They fear that in capitated systems, those who most need sophisticated services: those disabled with serious and persistent mental illness will be most neglected. It is difficult to document how organizational processes and incentives

affect outcomes, and the impact of cost containment measures on outcomes may not become evident for some time. Critics are particularly concerned about having managed practices shift responsibility and care to families that are already substantially burdened by having a member with serious mental illness (Schlesinger 1986).

While assessing the evidence is complicated, when similar findings occur across patient populations, organizational contexts, and different points in time, we can develop some confidence in the results. We currently know a great deal more about prepaid group practice than other types of HMOs, and more about HMOs than UM. Over time, however, a useful knowledge base is emerging, although it is more informative about cost than quality (Mechanic et al. 1995). A major attraction of HMOs is the repeated observation that they can provide services comparable to traditional fee-for-service, for significantly less cost (Luft 1987). In the medical arena, they achieve this primarily by reducing hospital use and the rate of surgical intervention. In mental health and substance abuse services, they achieve economies by reducing hospital use, and substituting less intensive patterns of care for more expensive patterns. HMOs do this by reducing the number of visits, substituting social workers and general physician services for psychiatrists and psychologists, and treating in group, as compared to individual, settings (Wells et al. 1986, 1987). Initially, it was not clear whether IPAs could achieve reductions in cost comparable to prepaid group practices, but more recent evidence suggests they can (Miller and Luft 1994).

Until the RAND Health Insurance Experiment (HIE), there was considerable skepticism that gains in efficiency achieved in prepaid practice could be attributed to organizational practices, as compared with patient selection. It was commonly suggested that HMOs were attracting younger and healthier enrollees, who were less likely to have high medical expenditures. However, patients randomized into the Group Health Cooperative of Puget Sound, when compared with fee for service patients who paid nothing at the point of service, experienced a comparable reduction in utilization and cost, to that observed in nonexperimental studies (Newhouse and the Insurance Experiment Group 1993). Thus, the HIE provided evidence that capitation and the managed care practices used, made a difference. The HIE had too few patients with serious mental illness to assess the effects of MC on this subgroup. For the population covered by this study, and the dimensions measured, there was no evidence that outcomes varied by practice type (Wells et al. 1990). The Medical Outcomes Study (MOS) was able to examine how practice type affected treatment and outcomes for depressive illness. For the most part, there were few differences between fee- for-service and HMOs, but patients with depression treated by psychiatrists in HMOs, were less likely to have continuity in medication, and had poorer outcomes over time (Rogers et al. 1993). This effect was found primarily in IPAs, and was not consistent across sites, leaving many important questions unresolved. But the findings suggest the need for caution and careful monitoring in extending managed care arrangements to those with the most serious mental illness.

There have been some studies of the Medicaid population with mental illness in managed care arrangements. They vary from efforts to mainstream people with mental illness into existing HMOs, to those that use specialized mental health provider organizations like community mental health centers, to manage the mental health and medical care needs of a capitated population with mental illness (Mechanic and Aiken 1989). With the growth of Medicaid managed care, many more such studies are in process, and our informational base is likely to increase a great deal in the future. States are increasingly making plans to contract with managed care providers for their Medicaid population, on a risk basis (Essock and Goldman 1995). Such MC providers would develop and supervise a network, providing care to a capitated Medicaid population. Approximately a quarter of the Medicaid population is now in such programs (Davis 1995), and earlier excluded groups such as the population with disabilities, are increasingly coming under MC.

There are some important conclusions from the work carried out in a variety of States. In theory, combining health and mental health in a single capitation is appealing for providing a comprehensive service, supporting the value of mainstreaming persons with mental illness into generic HMOs. Few such

HMOs, however, have the experience or interest in taking responsibility for persons with serious and persistent mental illness. Such persons with mental illness, competing for services with others with less stigmatizing conditions, may be neglected (Schlesinger and Mechanic 1993). A major effort to mainstream the Medicaid population with mental illness in Minnesota, found a high level of continued use of public sector services that were not reimbursed, indicating costshifting from HMOs to public services (Christianson et al. 1992; Mechanic 1992). In the long run, the anticipation is that managed care organizations will assume responsibilities for public sector patients, and that directly provided public sector services will diminish. Thus, HMOs must have an appropriate capacity to directly provide, or contract for, all necessary services relevant to the proper management of persons with serious mental illnesses and disabilities. It is not clear how many have, or are interested in, developing this capacity as a high priority.

The evidence is reasonably persuasive that MC reduces aggregate costs for both employers in the private sector, and State government in the public sector (Hodgkin 1992; Christianson et al. 1995; Mechanic et al. 1995; Callahan et al. 1995). In the private sector, studies of individual employers show substantial initial reductions in costs, followed by smaller reductions over the long term (Hodgkin 1992). Experience with Medicaid MC also shows reduced inpatient care utilization and lower expenditures, in some cases of substantial magnitude, during the early stages (Mechanic et al. 1995; Mechanic and Aiken 1989), but we have relatively few data on long-term cost reduction. A study of capitated care in Utah suggests few savings for people with serious mental illness over 3½ years (Manning et al. 1995). Although there is much enthusiasm for the evidence that MC reduces expenditures, these data must be interpreted with some caution. In private sector MC, for example, companies more inclined towards managed care, at least initially, were those with high mental health costs. In some instances, costs continued above average even after MC was implemented. While reducing costs in high cost firms is not insignificant, it remains unclear whether MC brings one time cost improvements, or whether costs continue to be contained significantly over time. Studies also address the cost impact for the employer or for a State program, but not for all parties concerned. Costs are easily shifted, and full evaluation requires assessment of how reduced expenditures affect individual and family payments, family burden, and costs for the larger community (Mechanic et al. 1995).

The cost shifting phenomenon is almost never adequately studied in respect to managed care programs. There is considerable evidence that the burdens of caring for a relative with a serious disability can be very substantial, affecting not only work efforts, family income and leisure time, but also the caretakers' mental and physical health (Gallagher and Mechanic 1996). In reducing hospitalization and other services, it is essential to consider what increased burdens occur for others. Similarly, patients with serious disorders, who receive inadequate care, are sometimes at risk of arrest, imprisonment or victimization. Health economies that simply result from transferring responsibilities from mental health services to criminal justice systems are of no service to patients or the community. Cost shifting effects can be subtle and difficult to detect. For example, a McDonnell Douglas study of employee assistance plans compared employees with mental health or substance abuse disorders, who were covered by HMOs or fee-for-service insurance. After controlling for demographic differences, the study found that more than twice as many HMO enrollees lost their jobs after the onset of treatment (McDonnell Douglas 1989). It remains unclear as to whether the study controlled all relevant selection effects, but this evaluation suggests a necessary caution about the types of important outcomes that are easily overlooked.

Reducing utilization and expenditures is the easiest of tasks, if the object is simply to create obstacles to needed care. Making sense of the performance of MC requires evidence, at least, that MC strategies do not diminish the quality of care, and, hopefully, that they enhance it. Evidence on quality and outcomes are limited, but are key to any serious evaluation. In the case of the general population, there is no evidence that mental health MC has any detrimental effects, even if the patterns of care received are quite different from traditional care (Wells et al. 1990). But, again, most of what we know comes from well-established prepaid group practices. There are, however, indications that patients with the most

severe and persistent mental illnesses fare less well under MC than traditional forms of practice (Manning et al. 1995; Mechanic et al. 1995; Wells et al. 1995; Rogers et al. 1993). These differences are not large or easy to understand, but they do highlight the importance of examining not only aggregate effects, but also how varying vulnerable subgroups fare under emerging changes.

Some recent studies have focussed on outcomes for patients with schizophrenia under MC. In the Minnesota demonstration, Lurie and colleagues (1992) followed a population of 370 clients with schizophrenia, who were assessed at baseline about one year later, when they were withdrawn from the demonstration, and eleven months after. Over the course of the study, adjusted Global Assessment Scores deteriorated more among clients in managed care than in fee-for-service. At the final measurement, the differences were statistically significant. While there were no differences in the number of inpatient mental health admissions, capitated patients had shorter lengths of stay (1.56 versus 4.3 days) and were more likely to report being refused care (17 percent versus 12 percent; $p = .06$).

Manning and his colleagues (1995) reported outcomes after 3½ years for 823 patients with schizophrenia in Utah, who were in capitated and fee-for-service practice. Using adjusted regression comparisons, they found that clients with schizophrenia were getting sicker in MC, as compared to fee-for-service, that the differences increased over time, and that the effects seemed to be larger for those who had the most severe symptoms at baseline. Moreover, they found little indication of long-term savings in cost for patients with schizophrenia.

There are a number of reasons to expect more vulnerable patients to do less well in capitated programs. Such patients are often difficult to manage, and even with intensive use of resources, they often show limited improvement. Often their function fluctuates over time, and seems to show little responsiveness to treatment efforts. Thus, they are not preferred patients for the average staff member. Patients with serious mental illnesses, and those with substance abuse problems, may be frightening to staff who have little experience working with such patients, and who have little expertise in dealing with their special problems. In facilities where patients are mainstreamed, such patients may be stigmatized, and typically have few skills and resources to effectively communicate their needs and preferences. Even in capitated programs, staffed by experienced mental health professionals seeking to provide the best care for a population of patients within a finite budget, intensiveness of care for patients with the most serious illness may be reduced, to achieve what may appear as a fairer distribution of resources across the entire patient population.

In the Utah study, for example, capitation appeared to most reduce the visit rate among patients who previously had been the highest users of outpatient mental health services (Manning et al. 1995). Limiting treatment may show few obvious short-term effects among patients whose symptoms and functioning fluctuate under the best of circumstances. Differences may become evident during longer follow up periods, as in the Minnesota (Lurie et al. 1992) and Utah studies (Manning et al. 1995). In examining the treatment of depression in the Medical Outcomes Study, the researchers also found that patients treated by psychiatrists in prepaid settings, as compared with fee-for-service settings, developed new limitations in role and physical functioning over time, as measured at the two year followup (Rogers et al. 1993). Such effects might not be apparent initially, and only appear over the longer term, as continuity of medication is affected by managed care practices.

Incentives Affecting Professional Practice

Many factors influence how health professionals practice, not the least of which are the professional norms they acquired during professional socialization, and reinforcement of norms by professional peer groups. Monetary incentives also have important effects. While we know something about how such effects work in general medical care, these issues have not been specifically studied in mental health settings. For most of the population, however, mental health benefits are part of a general health care

plan, and referrals in capitated plans come through a primary care gatekeeper. In some plans the health care organization withholds part of the physician's remuneration, which is only paid if the primary care doctor's use of procedures and referrals falls within particular utilization targets. In a study already somewhat dated, Hillman (1987, 1990) found that about two-thirds of HMOs withheld part of the basic payment, while about 30 percent invoked penalties beyond the withhold for those with high utilization, by placing a lien on future payments. About 18 percent placed the individual physician at risk for the utilization outcomes of their own limited patient population, rather than all the patients in a group pool. Large withholds, and having the physician at risk for expenditures on solely their own patient panels, are most common in for-profit plans. Hillman and colleagues have shown that such arrangements are associated with a reduction in patient visits (Hillman et al. 1989).

A recent study by Mathematica Policy Research for the Physician Payment Review Commission, of a random sample of 108 MC plans in 20 urban markets, found that 56 percent of networks and IPAs pay primary care physicians by capitation, typically with withholds and bonuses. Those who used fee-for-service had similar incentives, with only 12 percent having no additional incentives beyond the fee-for-service payment method. More than one-half of the group and staff model HMOs that used salary as the main method of remuneration, also used withholds and bonuses (Gold et al. 1995). Most MC organizations only allowed income to fluctuate by about 20 percent or less, but 13 percent of network IPAs allowed fluctuations of more than 30 percent, and almost half, by more than 20 percent.

Hillman also found that about 40 percent of primary care physicians under capitation must use this capitation to pay for any outpatient laboratory tests (Hillman 1990). This results in a dollar-for-dollar reduction in remuneration for every procedure the doctor orders. Such arrangements are more likely to influence physician behavior than an established pool of resources, shared by a large number of doctors, where the actions of any single doctor have no large influence on the pool. Observing that remuneration incentives specific to individual doctors influence their judgments does not imply unprofessional behavior. Much of medical and psychiatric care is uncertain, and the presence of incentives may readily affect decision-making at the margins. The ideal system of incentives is one that induces thoughtfulness and care in decision-making, but remains relatively neutral as to the decision made. The likelihood of neutral incentives is greater, as the resource pool is enlarged. Of course, the larger the pool, the weaker the individual incentive.

Beyond withholding remuneration depending on utilization, some managed care firms profile their doctors, and put pressure on those who exceed utilization norms. It is alleged that MC firms eliminate high cost physicians from their plans and networks, but data on the extent of such practices are difficult to obtain. When plans were asked about their network philosophy, most plans emphasized careful selection, but about a fifth were happy to prune later (Gold et al. 1995). These responses, however, were not specific to cost issues. Some large HMOs adopt practice standards for treatment of particular diseases, but such quality assurance standards only cover a limited range of conditions (Gold et al. 1995). The application of standards might, in some cases, substantially increase evaluation and interventions. For example, the rate of recognition and treatment of depression is relatively low in prepaid practice (Wells et al. 1989), suggesting that standards for assessment and treatment could increase interventions and cost. It is also plausible that the appropriate management of depression will result subsequently in less utilization and cost, although the evidence on this issue remains equivocal (Simon et al. 1995).

Issues for Persons With Severe and Persistent Mental Illness

One possible advantage of capitation of a defined population is that it allows the aggregation of funds for developing an expanded range of psychiatric and related social and case-management services needed by persons with severe and persistent disabilities (Mechanic and Aiken 1989). In examining the suitability of any MC care program, a central issue is the extent to which the program makes provision for the entire range of required services likely to be needed by a population of persons with severe disabilities. Such

provision could be direct or through appropriate contracts. In the MC world, purchasing and the contractual arrangements agreed upon between purchasers and providers take on major importance. As States contract for provision of services for its vulnerable populations, the contracting process becomes the critical turf defining the services system and the performance expectations of providers. As mental health policy shifts more toward the States, the purchasing process also becomes central for advocacy groups and consumers who wish to have a role. Advisory committees at the State level, involving consumers and advocates, could usefully advise State policy-makers on contractual needs. The value of such involvement will depend on the expertise advocates develop in purchasing.

In theory, MC achieves its economies by substituting less expensive services for more costly ones, most typically day treatment and community care, as a substitute for inpatient hospitalization. It is theoretically possible for a MC program to reduce both inpatient and outpatient care at the same time without harming quality, but it is more likely that when this occurs, it reflects generalized barriers to care, rather than a thoughtful process of balancing care options. Thus, observations of reductions across the board should be a trigger to alert purchasers and advocates that all may not be well, and careful scrutiny is required. For example, in the Minnesota Medicaid demonstration, patients in need of substance abuse treatment, as indicated by prior use, were less likely to be hospitalized under prepayment, than fee-for-service. Outpatient utilization also substantially declined. Over a three-month period, those in prepaid practice had only 40 percent the rate of treatment, as compared with those in fee-for-service practice (Finch et al. 1992). Substitution is a major objective of MC, but even here the types of services may be inappropriate. In a Midwestern study examining changes in clinical practice as a prepaid program matured, researchers observed a reduction in extended inpatient care for substance abuse. The substituted services, however, were detoxification rather than more intensive outpatient treatment (Thompson et al. 1992). Although no outcome data were provided, there is much reason to anticipate that detoxification is not an effective alternative (Gerstein and Harwood 1990).

States purchasing mental health services can insist that MC contractors take responsibility for all patients, and not simply pick and choose those patients they want. Intermediaries can also make this a provision for contracting with other providers. Such a requirement increases equity and probably works for providers who cover large populations of patients, but may threaten small capitated mental health providers, who may attract a disproportionately large share of patients with very expensive mental health care needs. Diagnosis in psychiatry is a poor predictor of resource need, and we continue to lack an appropriate means for adjusting capitation fairly for differential risk. Many of the best mental health providers of care for patients with the most serious disabilites, are relatively small agencies serving no more than a couple of hundred patients or less. For example, one of the most effective approaches for patients with severe and persistent illness, is assertive case management, embedded in a broad spectrum of services, as in the PACT model (Stein and Test 1985). These tend to be small organizations whose financial situation would be precarious if undercapitated. Such programs are further at risk because the best programs often attract the most disabled, difficult, and expensive clients.

Care is needed to avoid contracts with programs that offer less than outstanding mental health services. Many large MC organizations have little incentive to develop outstanding mental health care, since truly outstanding programs attract expensive clients, who not only use more psychiatric services, but more medical services as well. There are a number of mechanisms to reduce risk: by adjusting capitation; sharing risk with providers; or setting "stop losses" to keep risk within a manageable range. The challenge is to develop incentives for careful decision-making and efficiency, without putting excellent providers at excessive risk. Adjusted capitation is imperfect, but modifying capitation based on the previous year's utilization, puts providers with high-risk patients on a more equal playing field. This approach has limitations, because continuity in utilization varies from year to year, but there is sufficient continuity among patients with serious disabilities to justify such a correction (Newhouse 1994; Schauffler 1992). Another mechanism to reduce risk is to blend capitation with cost reimbursement, to allow for unanticipated needed expenditures. A third approach is to establish a stoploss beyond which the provider

is held harmless, but the stoploss provides no incentive to conserve resources once the limit is reached. A better arrangement is a risk sharing provision where the risk for expenditures beyond some limit are distributed (a form of reinsurance with a co-insurance feature). Finding a fair way of distributing risk is an important aspect of the contracting process.

A major issue in MC is whether mental health should be integrated as part of health care, or whether it is better managed on a "carve out" basis by organizations and providers who have special mental health expertise and experience. Each has distinctive advantages. Integrating mental health services within a single health budget allows for a wider range of tradeoffs, and takes advantage of any reduction in general medical services and expenditures that results from effective mental health treatment. In theory, it also provides an incentive to give attention to mental health problems, because the provider organization is at risk for medical utilization that results from neglected mental health problems. Unfortunately, many gatekeepers in HMOs are neither interested in mental health problems, nor particularly astute in recognizing them (Wells et al. 1989). Given the realistic pressures of medical care, with many different types of patients competing for attention, persons with mental illness are likely to be disadvantaged (Schlesinger and Mechanic 1993).

Specialized mental health providers are better prepared to deal adequately with problems, have more experience and understanding of persons with serious mental health problems, and probably provide better care. Mental health services organized as part of general medical services, in contrast, may be more acceptable to many patients, and feel less stigmatizing. It may be that an appropriate arrangement is a partial "carve out," where HMOs manage most ordinary mental health problems within the context of the general delivery system, but refer patients with more serious disorders to a specialized contractor. Large prepaid group practices typically have their own specialized psychiatric services, but they are usually not well-equipped to provide appropriate social management for patients with severe and persistent illness.

At present, most HMOs offer only a limited acute mental health benefit, and many have discouraged persons with serious mental illness as enrollees. In the late 1980s, the Harvard Community Health Plan modified its mental health benefit to provide more intensive outpatient care to persons with serious mental illness. To achieve this, the Plan revised copayments so that persons with less serious psychiatric conditions had increased copayments after the eighth visit, while those with more serious illness had unlimited outpatient care, with no increase in copayments (Sabin 1995). As MC programs develop, and increasingly have responsibility for persons with severe illness, they should be encouraged to contract with specialized mental health providers who offer outstanding community care services, for the relatively small proportion of patients who will require them.

The key to effective mental health services in a managed care future will depend substantially on the purchasing and contracting process. As States, localities, and large employers gain more experience with the purchasing process, they will gain expertise in setting requirements for service, standards of provision, criteria for evaluation, measures for accountability, ways of hearing patient complaints, and assessing patient satisfaction, and the like. Well-constructed contracts are the basis on which thoughtful care planning can occur, and mechanisms for accountability put in place. The stakes in losing a major contract can be quite high for competing managed care companies, and purchasers for significant numbers of patients have a great deal of influence. Increasingly, States are using their purchasing power to require HMOs who contract to serve public employees, to also agree to serve the State's Medicaid population.

A continuing concern is that some HMOs receiving a global capitation, will under-invest in mental health and substance abuse treatment. HMOs have competing objectives and constituencies, and may give preference to clients who are less stigmatized than clients with mental health and substance abuse problems. Meaningful data are difficult to obtain. In 1995, the State of Massachusetts threatened a dozen HMOs with exclusion from future contracting, if they did not improve mental health/substance abuse services. Although the figures were in dispute, the State claimed that these HMOs were significantly

short-changing Medicaid clients in the provision of these services (Health Care Press 1995). Setting quotas for care reduces flexibility, but when global capitations are used, minimum guidelines might be needed to protect specialized services for vulnerable patients who have less prestige.

How Much Regulation?

Early HMOs were largely nonprofit organizations, and had strong community orientations. In recent years, the managed care industry has been rapidly privatized, with nonprofits now in a minority. New HMOs increasingly use complex financial arrangements and incentives to build networks, and depend heavily on independent doctors who contract to provide services under a capitation arrangement. Persons who have confidence in the marketplace, believe that over time competition will drive out inefficient and low quality service, and that little public regulation is needed. They believe that regulation creates perverse incentives, increases transaction costs, introduces inefficiencies, and stifles innovation. In contrast, others see the managed care market as extremely lucrative and attractive to many investors for large and quick profits, with little concern about longterm development, and that "current payment incentives and market dynamics may well discourage plans for improving care for vulnerable patients, or reward those plans which succeed in avoiding, rather than managing, care for those most in need" (Davis 1995).

A major problem with competition in the health care market is that it is easier to compete in risk selection, than in building the necessary complex care structures that effectively serve the most sick and vulnerable individuals. Providers well know that there are windfall profits if one can enroll large numbers of healthy people who use few services, and avoid those with serious illness, who are expensive to serve. Even within the Medicare population, whose average enrollee has much greater needs than the population as a whole, one-fifth of those eligible do not use any reimbursable services in any given year. In contrast, the sickest one-tenth averaged $28,120 in 1993 (Davis 1995). HMOs have demonstrated great ingenuity in marketing, so as to enroll the best risks, and avoid those with largest disadvantage and potential high costs. Experience to date suggests that managed care itself must be managed to insure that competition takes place on a constructive, rather than a destructive, basis. Yet there is much room for argument as to optimal degree of regulation, whether it be public or private, and the extent to which it is voluntary. Nonprofit ventures such as the National Committee for Quality Assurance, and the development of the Health Plan Employer Data and Information Set (HEDIS), establishing performance measures (Epstein 1995), indicate the constructive roles that private organizations and industry groups can play. Such efforts, however, are entirely voluntary, and draw the support and involvement of those MC organizations that probably need monitoring and regulation the least.

Karen Davis (1995) has suggested eight areas of needed attention in holding MC plans accountable: strengthening minimal standards for participation; monitoring access and quality of care; seeking methods to offset perverse financial incentives; establishing clear patient rights; public disclosure and availability of statewide databases on plan performance; supporting professional responsibility and ethical behavior; fair marketing; and public action to provide subsidies to the uninsured and vital specialized health activities that may not be profitable. Standards on these types of issues can be publicly enforced or used by government, employers and other large purchasers in selecting among plans, and in developing specific contracts. They also can be used by advocates and consumer groups to judge various plans, and how well they are doing in meeting their clients' needs. In the discussion below, I address just a few of these issues as they affect the most vulnerable patients with mental illness and substance abuse problems.

Most critical for vulnerable populations is that they gain entrance to well functioning plans, and that these plans have the capacity to respond meaningfully to the full range of their needs (Dincin 1995). As States move aggressively into Medicaid managed care, opportunities for abuse are large, with evidence of plans using recruiters who bypass individuals who seem ill or frail, and who misrepresent the options for

choice. Some States have found it useful to hire an independent organization for the enrollment process, which, in addition to other functions, informs potential enrollees accurately of their options.

Once in a plan, clients should have easily accessible means to make complaints about inadequate service or efforts to encourage them to disenroll, on the grounds that the organization is ill-prepared to provide the types of services they need. Any organization proposing to meet the needs of highly vulnerable clients should be required to demonstrate its ability to provide for, or arrange, the entire range of services relevant to high quality care. Performance measures must be put in place with timely assessments of how well a contractor is meeting the expectations of the purchasing agency. Since disputes are likely to occur around denial of services, MC organizations should be expected to disclose the specific guidelines used by case managers and utilization reviewers, to triage services and examine performance in relation to these guidelines, to the extent possible. Performance should be measured in broad terms, examining not only symptom change, but also improvements in function, satisfaction, and quality of life. MC organizations should also disclose the incentives used in its contracts with professionals. Monitoring should include the impact of treatment decisions on family burden and family functioning, and providers should be asked to demonstrate their capacity to be accessible to families, and to work with them. MC providers should have explicit mechanisms for dispute resolution, and meet reasonable standards for their accessibility and responsiveness.

The Positive Potential of Mental Health Managed Care

The rapid shift now taking place in the market for mental health services, particularly in the public sector, is of major concern. As with deinstitutionalization, the fear is that our governments are embarking on massive policy changes without adequate preparation, to insure that new arrangements meet the test of appropriate and high quality care for our most vulnerable citizens. The concept of managed care is difficult to fault, and offers important potential benefits, but implementation remains uncharted. The reality is likely to be neither as good as the advocates believe, or as bad as the horror stories suggest. It will depend a great deal on the clarity and thoughtfulness with which purchasers approach their task, and the extent to which they incorporate high clinical standards and consumer preferences in their evaluation of performance.

One major advantage MC brings to health care is flexibility in planning and responding to individuals' needs. It begins to get away from defined, but limited benefits, shifting to a greater opportunity to follow a plan of treatment that fits patient needs more flexibly than under traditional plans. It has the potential of large savings, by more prudent use of inpatient care and emphasis on innovative alternatives. Mental health care is a highly individualized service, and is only as good as the training and judgment of those who manage and provide the care, and those who supervise the process. Too often in the past there has been an incongruity between the services patients most needed, and those mental health providers most wanted to provide. Managed care can change these patterns, and reconfigure services more in the direction of those required, rather than those professionals most wish to supply. Flexibility, however, must be bounded by a critical attitude and rigorous evaluation of what really works.

Managed care also has considerable potential for professional education and socialization. Mental health treatment has too often been over-inclusive, incorporating almost anything professionals wanted to do. It has been subject to fads and fashions involving little critical examination, and almost no serious evaluation. Because of great uncertainty in the treatment of most major mental disorders, there has been an absence of mechanisms for challenging questionable treatments and management approaches. In recent years there has been growing effort to develop practice standards for the major mental disorders based on the best available information, such as randomized clinical trials and other rigorous investigations and evaluations. Too many practitioners have been immune to these new influences. Managed care has great potential to reeducate many practitioners about appropriate norms of practice, effective treatments, and better management approaches. This of course assumes that quality of care will be an important priority

in purchasing, and that economic efficiency and cost containment will not be exclusive values. Some clinicians fear the latter.

Finally, stigmatization of people with mental illness has been a pervasive problem. In resource constrained public programs, organized on a catchment area basis, staff often prefer to work with those less ill, and those who seem to offer greater promise of substantial improvement. There is a long legacy of neglect of those most in need, in part because the services they needed were not those professionals most enjoyed providing, and also because they were devalued. Managed care assigns responsibility and, hopefully, accountability, for each capitated patient. While it is true that more attractive, sophisticated, and persuasive patients often get more service in any system, MC provides a structure that makes it possible to monitor accountability in very specific terms, and this could be a significant advantage. Purchasers can arrange for special studies of their most vulnerable clients to examine how their care is provided, and can hold specific providers accountable for neglect or inadequate performance.

Conclusions

There is much rhetoric, misinformation, and confusion surrounding managed care. Changes are occurring at a dazzling pace, with a great diversity of experience. One can find outstanding managed care practices, but also quite shoddy ones. Given the complexity of MC arrangements, it is not surprising that discussants speak at cross purposes, and often in anger. The area cries out for systematic, unbiased investigation and evaluation, but such study is often difficult and unconvincing. More and better research in this area will help a great deal, but MC has its own dynamic quite independent of any overall evaluation. The most useful research, therefore, is likely to involve inquiries that give guidance to **managed care providers** about best practice; **purchasers** about what and how to buy, and how to evaluate the product; and **regulators** as to those practices requiring close surveillance. Varying participants, of course, have different agendas and objectives, and MC will always involve tensions, but hopefully, constructive ones.

There are those in the MC industry who believe that UM, and the hassles and frustrations it involves for clinicians, is simply a stage toward a less intrusive but more mature design. The evolving design is governed largely by financial structures that induce thoughtful decisions built around professional norms that evolve through professional consensus. Consensus is achieved through systematic review of the best evidence (Bero and Rennie 1995) (what some call "evidence-based" medicine). These consensus standards may be explicit, gently introduced, and encouraged by the medical management of the plan. They also may be introduced by clinicians working together to improve their performance. Most discussions of this sort evade the issue of rationing of care, on the assumption that resources are ample to provide an appropriate quality of care for all, but this, of course, begs an important question. The issue is complicated by the fact that some significant proportion of the capitation or premiums will be profits.

If the goal is to give providers neutral incentives, so they have no motives to either under- or over-utilize care, then more attention needs to be directed to the financial arrangements MC companies have with contracting providers. This will provide helpful guidance to purchasers, and possibly, regulators, as to the appropriate bounds of cost containment incentives. While we know that some of the incentives used successfully reduce utilization, we have no evidence about effects on quality of care. Purchasers also require help in assessing how to define the range of services needed for vulnerable populations with different disabilities, and what constitutes minimal, acceptable, standards for access, duration of treatment, intensity of care, and other parameters of patient management.

In the final analysis, the future of MC depends a great deal on trust, and the belief of varying participants, that most of those engaged are searching for ways of providing a good quality product. But there is enough evidence of inadequate performance to suggest that some level of distrust is appropriate, and that regulatory activities are also needed. Discovering the proper balance requires more knowledge

than we presently have about the range of practices and their effects, and how this particular market is likely to evolve. Research needs to focus on innovations and best practices, as well as those that should be deterred. Managed care remains an evolving set of processes and products, more an example of continuing tinkering and adaptations, than a clear blueprint for our health care future.

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Chapter 2

The Growth and Direction of Managed Care

Ronald W. Manderscheid, Ph.D. and Marilyn J. Henderson, M.P.A.
Center for Mental Health Services

Introduction

The first phase of managed behavioral healthcare--the control of costs--is ending. The second phase--an emphasis on quality in relation to cost--is dawning. This chapter will explore some of the major implications of this change.

The context for the delivery of mental health and substance abuse care has changed dramatically as managed behavioral healthcare has advanced. More than 120 million persons are now covered by private managed behavioral healthcare insurance plans. A total of 22 States have received Federal waivers to implement Medicaid managed behavioral healthcare programs. Preferred provider organizations (PPOs) and health maintenance organizations (HMOs) have been set up for managed care, and a range of options has been used to contract with providers.

One major objective of this chapter is to describe current and anticipated Federal and State legislative and regulatory activities that are relevant to managed care. For the Federal level, this will include review of developments with respect to insurance reform, the Medicaid and Medicare programs, and Performance Partnership Grants. For the State level, the review will include developments that are designed to protect against the negative effects of managed care. Although most States do not currently have such provisions in legislation or regulation, major efforts are being mounted to effect such changes.

A second major objective is to explore the implications of current trends in terms of likely future developments. Managed care will continue to grow, particularly in the public sector, and many "carve out" programs will become "carve in" programs, except for persons with severe problems. Providers will organize networks of care that will compete with managed care organizations for health care and utilization review business, and non-traditional health maintenance organizations will become a preferred vehicle for managing care. Private and public managed care programs will engage in joint ventures.

A third objective is to outline steps that are necessary to foster quality in service delivery under managed care arrangements. Recommended developments in case management illustrate the nature of the specific steps involved.

Background

Managed care has been practiced since the inception of health maintenance organizations (HMOs) during the 1930s and 1940s. However, since the early 1980s, a new form of managed care--the utilization review firm--has grown rapidly in response to dramatic increases in the costs of health care. Utilization review firms, frequently called managed care organizations, control the expenditure of insurance funds by requiring providers to seek approval to deliver care. Hence, they serve as intermediaries between employers and insurance companies, on one hand, and providers and consumers, on the other.

In the mental health and substance abuse fields, managed care organizations have generally taken the form of "carve out" firms that provide utilization review only for mental health and substance abuse problems. Since 1990, these firms have expanded their operations beyond managed care functions to

include provision of services through directly owned or contracted networks of providers. Collectively, these activities are being referred to as behavioral healthcare. Freeman and Trabin (1994) provide a detailed overview of the private-sector managed behavioral healthcare field and its likely future course.

President Clinton's proposed Health Security Act stimulated considerable momentum in the States to engage in health care reform activities. The demise of the national effort has constricted these State initiatives so that, in most States, reform is centered upon a Medicaid waiver to permit managed care of the Medicaid population, in some cases with expansion to other populations without insurance. (Medicaid waivers are described below.) States are very interested in Medicaid managed care because they wish to control the rapid growth in State expenditures for the Medicaid program, while extending health care to the uninsured.

Without the national service and financing reforms proposed under the Health Security Act, managed behavioral healthcare has been growing rapidly in an undirected way. In the private sector, approximately 124 million people (Oss and Stair, 1996) are currently covered by some type of managed behavioral healthcare plan. State interest in managed care has led to the award by the U.S. Health Care Financing Administration (HCFA) of Medicaid waivers to 22 States that involve mental health and substance abuse. An additional 15 States are preparing waiver applications, waiting for approval, or waiting to implement waivers (Personal communication from Colette Croze).

An estimated 40 million Americans are currently without any form of health insurance. The balance of the U.S. population of about 220 million persons is covered by some combination of private insurance (182 million), Medicare (33 million), and Medicaid (32 million). (U.S. Bureau of the Census 1995). Clearly, the movement of Medicaid (or Medicare) into managed care will affect a very large number of Americans.

Within this context, it is important to examine managed behavioral healthcare and the Medicaid waivers in somewhat more detail. These brief analyses will provide a framework for discussion of current trends and expectations for the future.

Types of Managed Behavioral Healthcare

Managed behavioral healthcare can be provided through an HMO or through a network, such as a preferred provider organization (PPO). HMOs generally integrate health and behavioral health services, and are paid through a capitated annual premium. By contrast, PPOs generally provide behavioral healthcare services in a "carve out" arrangement, and are paid through some form of reduced fee-for service.

Figure 2.1
Types of Managed Care Entities

	Network Model	HMO Model
Staff	X	X
Independent Practice	X	X
Group Practice	X	X
Mixed	X	X

Note: For each of the eight configurations, a plan may or may not offer a point of service (POS) option under which participants can go outside the network or HMO to receive care from other providers.

Figure 2.1 outlines the various types of arrangements through which HMOs and PPOs can be organized. As indicated by this figure, the two models are converging, such that the distinctions between them are less apparent. The traditional HMO is one in which providers work for the organization, i.e., a staff model HMO. Newer types of HMOs include those in which contracted independent providers comprise the staff, i.e., an independent practice arrangement HMO, and those in which the staff consists of contracted groups of providers, i.e., a group practice arrangement HMO. In any of these HMO models, behavioral health care can be provided directly by the HMO or subcontracted to a "carve out" firm.

Behavioral healthcare networks, such as PPOs, can also be of the staff, independent practice, or group practice models. Most frequently, they are contracted independent or group practice arrangements. Generally, members of the network contract with a managed care organization for referrals under a reduced fee-for-service arrangement. At present, some managed care organizations are beginning to employ capitation payment arrangements, under which providers will share at least part of the financial risk for consumer care.

Within the past several years, some HMOs and PPOs have added a "point of service" option to their basic behavioral healthcare plans. This means that consumers can go outside the HMO or PPO to see other providers. However, when consumers do this, then they are generally required to pay part of the cost for the care received through additional copayments and deductibles.

Medicaid is a health care entitlement program for Aid to Families with Dependent Children (AFDC) recipients; Supplemental Security Income (SSI) recipients; elderly persons who are low income and disabled; low income pregnant women, infants, and children; and medically needy recipients. The States and the Federal Government share program costs through a formula based on State per capita income. Although all States are required to provide a basic set of services, other services can be included or excluded at the election of the State.

Some mandatory Medicaid services under the traditional plan that are important for mental health and substance abuse care include inpatient and outpatient hospital services, home health care services, nursing facility services, physician services, and early and periodic screening, diagnosis, and treatment (EPSDT) services for children. Relevant optional Medicaid services would include targeted case management, rehabilitation services, clinic services, personal care in the home, and prescription drugs.

The Health Care Financing Administration (HCFA) grants Medicaid waivers to the States to change how services are delivered, to change the particular services that can be provided, or to change the population included in the program. Two types of waivers are available. The first is specific to the Medicaid program, i.e., the 1915B waiver; the second is generic across the Social Security Act, i.e., the 1115 waiver. Each will be described briefly.

The 1915B waiver can be used to modify the requirement that Medicaid services be available on a statewide basis; the requirement that the amount, duration, or scope of services be the same for all recipients; or the requirement that recipients have freedom of choice of providers. In the latter case, a waiver can be used to lock recipients into a particular plan for up to six months. Thus, States can use such a waiver to implement Medicaid managed care in a portion of a State or for a particular Medicaid subpopulation, using either an HMO or PPO model.

The 1115 waiver permits everything included in the 1915B waiver plus expansion of program eligibility to other populations; addition of other services; relaxation of the requirement that 25% of HMO participants be non-Medicaid consumers; extension of consumer lock in beyond six months, typically for one year; and reallocation of disproportionate share (DSH) payments to the Medicaid managed care program. States can use such a waiver to expand the Medicaid population pool to cover uninsured persons

while containing costs through implementation of HMO or PPO model programs. Clearly, the 1115 waiver permits more flexibility than does the 1915B waiver.

Description of Current Status

For ease of presentation, the description of the current situation will be divided into Federal developments and State developments. However, these sectors interact with each other, and thus mutually influence developments in each.

Federal Developments

Federal developments pertinent to managed care are occurring principally in the Congress. In the past two years, an incremental approach to health care reform has been predominant.

- Minor insurance reforms, potentially including elimination of pre-existing condition exclusions and the addition of a requirement for insurance portability from job to job. Although these changes are considered relatively minor by the industry, they could be major for mental health and substance abuse, and could represent significant gains for these fields. Senators Kassebaum and Kennedy have introduced a bill that incorporates these changes, and Senator Domenici has introduced an amendment to mandate parity between mental health and physical health insurance benefits. A somewhat different Bill in the House of Representatives also includes a provision for Medical Savings Accounts that would be protected from taxation.

- Reform of the Medicaid program, potentially including program caps on expenditures (analogous to the "global budget" concept discussed in conjunction with the President's Task Force on Health Care Reform) and conversion of the program to a State block grant. Depending upon the degree of flexibility permitted, States may find a Medicaid block grant appealing. For mental health and substance abuse services, a Medicaid block grant might decrease the resources available, since Governors would likely have additional flexibility to direct program funds elsewhere. Since many persons with mental health or substance abuse problems are not currently covered by Medicaid, a financial cap could diminish the capacity of States to engage in reform activities aimed at expanding population coverage.

- Reform of the Medicare program, potentially including limitations on the growth of the program and conversion from fee-for-service to either managed care or a voucher system. In this program, beneficiaries may identify a tradeoff between limitations on program growth and managed care. If this occurs, then managed care could be perceived as an appropriate vehicle for permitting expansion of the beneficiary population or the benefit package under a reduced financial growth plan. Vouchers would represent an alternative to managed care designed to increase consumer choice, while controlling resource expenditures. Since mental health and substance abuse care are not as heavily invested in Medicare as in Medicaid, the effect on these fields could be relatively small. However, the anticipated dramatic growth of the U.S. elderly population in both numerical and percentage terms (Manderscheid and Goldsmith, 1996) could lead to unanticipated growth in the demand for mental health and substance abuse services from the Medicare population.

- Development of Performance Partnership Grants (PPGs) to replace the current array of Federal block and categorical grants to the States operated by the U.S. Department of Health and Human Services (HHS). For each type of PPG, the Secretary of HHS would define a menu of objectives and measures, and individual States would negotiate with HHS about which objectives to choose for the three- to five-year period of the grants, including unique objectives not in the menu. States would also negotiate about the measures and standards to be used to define success. In addition, a small number of national objectives would be defined for each PPG; States would be required to report on

these objectives, but would not be judged on them unless they were selected by the State for its particular performance contract. The Administration's proposal is for separate PPGs for mental health and substance abuse. A question for these fields is whether the Congress will support several PPGs in HHS or seek to convert all of them into a single health block grant.

- Encouragement of States by the Administration to submit Medicaid waivers to expand the scope of managed care systems in order to contain costs, as well as to expand coverage to uninsured populations. Although the number of States with waivers has grown rapidly, questions have begun to arise about whether the waivers actually contain costs. A recent report by the U.S. General Accounting Office (GAO) (1995) suggests that Federal Medicaid costs will expand dramatically under the waivers. For mental health and substance abuse care, a related issue could be the degree to which Medicaid resources will continue to be directed toward these problems, as opposed to migrating to other health problems. This concern could encourage States to opt for "carve outs" for mental health and substance abuse.

State Developments

Executive agencies of State government are at the forefront of current health care reform efforts. These efforts are being implemented through Medicaid Waivers as described above. In some instances, they are expanding the Medicaid population to include persons from the State uninsured population. Typically, expansion is directed toward persons who meet the income requirements for the Federal definition of poverty or less. In other instances, these reform efforts examine new ways of organizing care, including integration of specialty mental health care into HMO's.

State legislative and regulatory developments appear to be directed principally at constructing various protective devices to limit what are perceived to be the negative effects of managed care. Here, a brief description will be provided of the different types of relevant legislative and regulatory initiatives being undertaken by the States:

- Legal definition of "essential community providers" with which managed care organizations must contract for care delivery. Although this may seem to represent a victory for particular groups of providers, no assurance exists that such providers will actually receive sufficient referrals from managed care organizations once they are in the contract pool. A variant of this concept is "any willing provider" legislation, which would permit patients to choose their own provider, whether or not that provider is part of a managed care network. This type of legislation generally permits health plans to charge additional copayments for such "point of service" care.

- Definition of mandated benefits for particular types of illnesses or medical conditions. These mandates generally address length of treatment issues. Although intended to correct quality problems with inappropriate brevity of care, such mandates can also have the effect of increasing overall costs, since mandated benefits will become the norm for all cases, even if such care is not needed.

- Development of separate licensure or accreditation procedures for utilization review firms in order to begin to regulate the activities of managed care organizations. Such regulation is equivalent to State regulation of health insurance companies, and it is generally implemented by the same State agency.

- Community rating of health insurance premiums rather than rating by the characteristics of particular client pools. This can have the effect of reducing premium differences among clients, while penalizing those who would have lower premiums if the population were subdivided into separate risk pools.

- Definition of specialty providers as primary care providers so that they can serve as a point of entry for care rather than rely on referrals from primary care physicians in managed care networks or HMOs. Although such arrangements appear to be ingenious, it will be difficult to set capitation rates for such providers, since the range of care to be provided may vary dramatically from client to client.

The outcome of State legislative and regulatory initiatives will depend upon the relative strength of business, insurance, provider, and consumer interests. Careful delineation will need to be made in each case on the question of cost versus consumer choice, quality of care, and provider role. Needless to say, the mental health and substance abuse fields can foster discussion of these questions to inform State and local managers, public and private providers, and consumers and family members about the pros and cons of each topic.

Some Potential Future Courses

This brief analysis would not be complete without some discussion about the likely future course of managed care. The major context for these future events is likely to be a concern with fostering quality in relation to cost. (The dimensions of quality will be described below.) For simplicity, these future scenarios have been encapsulated into five general trends that are anticipated to occur over the next 5-7 years.

- Managed care will continue to grow, particularly for public sector services. States are very interested in controlling their health care expenditures, while trying to incorporate the uninsured into health care plans. This can only be done through a managed care (or similar) arrangement.

- The mental health and substance abuse "carve out" will become a "carve in", except for those persons with severe problems. For more than a decade, research has shown a primary care cost-offset effect, i.e., provision of appropriate specialty care can reduce primary care costs dramatically (e.g., National Advisory Mental Health Council 1993; Kessler et al. 1982; Lechnyr 1992). These financial benefits can only be achieved efficiently when the managed care organization controls both primary care and specialty care. Persons with severe problems will probably continue to be served through a "carve out" arrangement by providers with the needed skills for such care, even though their health insurance premiums may eventually be linked to those of broader population pools to spread the insurance risk and encourage providers to serve these populations. Incorporation of persons with severe problems into broader insurance groups that are based on actuarial principles will become a high priority in the future.

- Mental health and substance abuse providers will organize specialty networks and will participate in health care networks to compete with managed care organizations for private and public sector contracts. The State of Minnesota has begun to consider incentive arrangements for providers to form networks to deliver care and perform their own utilization review. Murphy (1995) provides a good, detailed overview of this topic, including an analysis of the legal implications of such networks. This trend deserves special attention because it has only developed during the past year, yet has the potential to revolutionize managed care. Consider, for instance, the potential of direct contracts between providers and payers to dramatically alter our traditional concepts of health insurance, while reducing overhead costs. Within this type of environment, there may be a different role for managed care organizations which capitalizes on administrative organization. They may specialize in the provision of administrative services, such as administering the benefit, collecting and providing electronic information, certifying enrollments, etc.

- Non-traditional HMOs may become a preferred vehicle for managing care, in contrast to the network approach of PPOs. This is likely to be the case because of the primary care cost offset effect described above and the desire of providers to form their own delivery systems that incorporate

managed care functions. Frequently, these delivery systems will evolve toward service integration because of the efficiencies of scale that can be achieved in program operations and the enhanced revenues that can be derived from more comprehensive benefit coverage. The outcome will depend upon the degree to which the HMO industry focuses upon behavioral healthcare issues. Irrespective of the outcome, this will not, however, clarify the question of how persons with severe problems will be served, as discussed above.

- Private and public managed care plans will begin to engage in joint ventures around common populations. As the public sector moves toward managed care for persons with mental health and substance abuse problems, an increase is likely to occur in the level of adverse selection in private managed care plans. In other words, management of the public sector will discourage the migration to the public sector of persons from private sector plans who use services intensively. This circumstance is likely to lead to financial incentives for private and public managed care plans to collaborate in service delivery and joint financial arrangements. Like the other developments, this one has the potential to revolutionize our traditional concepts of public and private systems of care.

Taken individually, each trend suggests further change in how mental health and substance abuse services are financed, delivered, and evaluated. Taken together, the trends suggest that these changes will be dramatic and potentially innovative.

Steps Toward Quality

Efforts to maintain and enhance quality relative to cost must be based upon key values and principles that will guide implementation of standards for systems and services. These values and principles will be most potent when they are consensually based and reflect the joint deliberations of all key stakeholders--consumers, families, providers, managed care organizations, and payers, as well as other community representatives. The values need to reflect desired outcomes, and the principles must provide a framework for the systems and services to be implemented. Together, the values and principles can provide a vision for desired states of health and the means of achieving these goals.

An example is presented below to show the steps that need to be taken to maintain and improve quality in service delivery, after values and principles have been agreed upon. The specific example cited is intensive case management services. However, the criteria discussed also apply to other services and systems.

Intensive case management services should be based upon the best knowledge and practice available, and they should be replicable in a broad range of settings. These conditions point to the need for clinical protocols that reflect case management best practices. Figure 2.2 outlines some key factors to consider in developing a clinical protocol for case management.

First, a system protocol must be developed for the program in which intensive case management is to be embedded. (A system protocol is a set of best practices, with associated costs--preferably on a capitated basis--for different population risk pools who are expected to use services with different intensities.) For example, work will be required to translate the Community Support Program (CSP) for adults with a serious mental illness (Mulkern 1995) into a system protocol. Second, a clinical protocol will need to be developed for intensive case management within the systems framework. Appropriate ethical guidelines should also be developed in conjunction with the clinical protocol. Third, prior work must be reviewed on the outcome of case management within the system protocol, and brief methods of assessment of outcome and system performance must be designed for use within the managed care context.

Manderscheid and Henderson (1995) provide an overview of some key data requirements for managed behavioral healthcare. Their work incorporates a conceptual foundation for performance indicators and clinical outcome measures to be used to assess system and clinical protocols. A Consumer-Oriented Mental Health Report Card (MHSIP Task Force 1996) was recently released by representatives of the consumer community, the Center for Mental Health Services, and the Mental Health Statistics Improvement Program. This report card is an excellent example of a measurement system that can assess both outcome and system performance. It takes the consumer point of view, and it promotes the value of recovery.

As is also shown in Figure 2.2, measurement questions exist at each of the levels of development. The questions shown are intended to be illustrative rather than definitive. Generally, these questions address the need to review prior work, to seek simplicity in the protocols being implemented, to examine questions of fidelity of implementation from site to site, and to use measures for the outcomes to be achieved.

Figure 2.2
Development of Managed Care Protocols

KEY ELEMENTS	KEY QUESTIONS
Development and Testing of System Protocol	• Prior Work? • Simplicity? • Fidelity of Implementation?
Development and Testing of Clinical Protocol and Related Ethical Guidelines	• Prior Work? • Simplicity? • Training Required?
Development and Testing of Outcome Measures and System Measures	• Prior Work? • Rigor? • Ease of Use in Managed Care Arrangements?
Development and Testing of Capitation Systems for System and Clinical Protocols for Different Population Risk Pools	• Prior Work? • Range of Variability within Sites and Population Risk Pools? • Types of Capitation?

Throughout the mental health field, little work is ongoing at present to develop the needed system protocols, to link them to clinical protocols, and to define appropriate ethical standards. An exception to this statement is the excellent work of the International Association of Psychosocial Rehabilitation Services to develop clinical standards for psychosocial rehabilitation (Mellen et al. 1996). A second exception is the excellent work of national professional groups, such as the American Psychiatric Association (Zarin et al. 1993) and Federal agencies, such as the Agency for Health Policy and Research (Depression Guideline Panel 1993) to define clinical protocols for specific disorders.

The Division of Mental Health of the World Health Organization in Geneva has specified detailed checklists of activities required to assure quality in mental health facilities and systems (Bertolote 1994)

and has identified essential treatments in psychiatry, including social interventions (Bertolote and de Girolamo 1993). These reports provide contextual information for the development of the system and clinical protocols described above.

With regard to intensive case management, activities in the field reflect considerable variability from State to State in the definition of service systems and the activities covered under case management. Without exception, these definitions have not been converted into managed care protocols. Also, States have begun to experience problems with their fee structures under Medicaid managed care because services are not clearly operationalized in protocols, and populations are not clearly differentiated into risk pools that require different service intensities. Thus, in addition to the development of protocols, a second type of activity is also needed.

Protocols must be "capitated" so that payers know what costs will be for different risk pools of clients. This simply means that the field must be able to arrive at an annual cost for providing different levels of system and service intensity. To continue the example, the field may wish to consider the capitated cost for providing several different intensities of case management, with careful specification of the type of population to be served through each. Subsequently, parallel capitation amounts must be developed for the other interventions that are part of the system protocol that includes intensive case management, so that overall capitation rates can be developed for different population risk pools that will use these services.

Conclusion

Managed care has changed the context of the mental health field dramatically and irreversibly. The field can adapt to these changes, but system and clinical protocols will need to be defined clearly to maintain and improve quality relative to cost. Different service system configurations must be costed out to develop annual capitation rates for population pools that require different intensities of services. The opportunity exists to be very creative, but changes must be implemented quickly if the goal of quality service delivery is to be maintained and enhanced.

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Chapter 3

Lessons Learned From Two Behavioral Managed Care Approaches With Special Implications for Children, Adolescents, and Their Families

Ira S. Lourie, M.D.
Human Service Collaborative

Stephen W. Howe, M.S.W.
Pressley Ridge Schools

Linda L. Roebuck, M.S.S.W.
Missouri Department of Mental Health

Introduction

The Relationship between Managed Care and Public Sector Mental Health Systems

A major finding of a recent study by Lourie, Howe, and Roebuck (1996) was the recognition of the positive potential of managed care principles. While managed care has been a much maligned health care approach, the service delivery philosophies of the managed care organizations (MCOs) in this study appear to be extremely compatible with the system of care philosophy. Both are concerned with offering care to individuals for their mental health problems using the most appropriate and least restrictive alternatives. Both understand that one of the primary vehicles that makes this possible is the availability of a full array of services. This has led to the development of home-based and other noninstitutional service modalities for use by both public and private populations. Although the scope of that array is seen more narrowly by most MCOs, and some services such as therapeutic foster and group home care, social rehabilitation, and respite are rarely made available, the recognition of the need for a continuum of care within the managed care world has brought the public and private sectors closer together.

The study by Lourie, Howe, and Roebuck will be used to illustrate how managed care works and how it is similar to public mental health principles and practice. This study was aimed at identifying system of care practices for children, adolescents and their families who are served in the public sector. A nationwide nomination process was conducted in which five private sector organizations were found which demonstrated the shift of public sector system of care approaches to the private sector. Two of these nominated organizations were managed care organizations (MCOs). Both of these were site visited as part of the study, and the results of those visits were used to develop the monograph reporting the study results, (Lourie, Howe, and Roebuck, 1996). This document is adapted from that report, and represents a version of the chapter on Managed Care Organizations, along with the site visit report for the two MCOs.

There are a number of similarities between managed care and public systems of care. Both rely on some form of case management to coordinate and assure access to services. At the managed care sites in this study, individual clients have their course of treatment followed by a *care manager*, who is responsible for knowing the client's entire mental health history, accessing the specific services needed,

and monitoring the effectiveness of a series of interventions[1]. In public systems of care, *case management* has these same functions and desired outcome. There are, however, significant differences between these care coordination mechanisms. In systems of care, the case manager's role also includes team building and the provision of some direct, ongoing support to the individual and family. In managed care, the care manager role additionally includes the responsibility for the authorization of specific service modalities and amounts of care, as well as for utilization review.

Even the negatively perceived cost containment emphasis inherent in managed care is not inconsistent with the goals of systems of care. In fact, cost savings has been one of the most important aspects of the changes following the introduction of the system of care concepts into public mental health. While this cost saving goal has not been as overtly touted as in the private sector, the perception of reduced costs following the public sector shift from institutional to community-based care has kept system of care development alive. If these new service paradigms had cost more, it is questionable whether the current degree of change would have occurred and persisted. Experience at the MCO sites in this report has demonstrated that a balance of cost and service delivery priorities can be approximated in the private sector when both the profit motive within MCOs and health care cost containment initiatives by employers are modulated.

In both public and private settings, new ways are being developed to optimize use of the dollars available. In this case, the technology transfer has been primarily from the private to the public sector, as management strategies utilized by MCOs are now being more scrupulously applied by public systems of care. Most prominent among these are the use of outcome measures to monitor individual progress as well as system efficiency, and the use of systematic processes to determine how to focus resources and maximize available funds (Cross and McDonald, 1995). Both of these private sector strengths provide important lessons to the public sector, which has historically done poorly in the areas of outcome measurement and resource allocation and management.

Impressions of Managed Care

Managed care executives are continually reminding others that managed care is not *one thing*; rather, it is way of looking at things. Managed care can be made into anything people want it to be, depending on what it is asked to do and how it is structured. Both MCOs described in this report were attempting to approximate the theoretical potential of managed care. They have done this by creating an approach that focuses primarily on service delivery, rather than on costs. First, they created a clinical model of care management in which licensed and experienced mental health professionals are asked to make clinical judgments within the context of high-level, often psychiatric, supervision. Secondly, they encouraged employers to purchase liberal benefit packages from them. Both of these MCOs espoused the concept of offering an unlimited mental health benefit that is closely managed. In doing so, they recognized that the best and most efficient care is that which can be crafted to meet an individual's specific needs and is flexible enough to be modified as necessary. When controlled by a care manager who knows the facts and history of the case and the full range of service alternatives in the community, this care can be more clinically appropriate, and, often, less costly. Finally, both MCOs acknowledged the need to view child and adolescent services as different from those provided to adults. This has encouraged the identification of providers who can offer child-oriented services and the development of mechanisms to support them.

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[1] This care manager model actually has been tested in the public sector as it was proposed as the basis for the Robert Wood Johnson's Mental Health Services Program for Youth project in Portland, Oregon. While it was ultimately dropped for a more conventional public case management model, the process of blending public and private sector technologies was demonstrated.

A Balanced View of Managed Care

It is important for the reader to understand that the dream of managed care is far from the reality. This report describes best practices. They set a standard that leaves most of the private sector far behind. While there is a potential within managed care to enhance the delivery of services, much of current managed care practice focuses on cost containment and profit making.

Unfortunately, child-serving professionals have rarely had the opportunity to see care managed in a positive way. Rather, they experience restrictions of service and demands which require them to practice in a manner contrary to their training. The increased paper work that accompanies managed care, although necessary for the efficiency of the MCO, is felt as a burden by public and private clinicians and agencies alike, and is seen as making their practices less efficient. Hence, they rarely, if ever, sense the improvement in service delivery possible under managed care.

This is similar to the experience of many family members, especially those with children and adolescents with more severe mental health problems. They often see limits rather than better care; rigidity rather than flexibility in service allocation. When a child's care needs become intensive and long-term, families are faced with being denied further services. When their mental health benefits have been exhausted, the care for their child is most often shifted to public sector agencies: schools, child welfare, and juvenile justice.

MCOs appear take little responsibility beyond the confines of the individual's benefit package. By definition, they can only offer a partial approach to care, the acute part. While family members might initially obtain a systematic, well-designed intervention, when benefit limitations are reached, they get nothing. When there is an avenue of eligibility, their care is shifted to the public sector. While this is not unlike the rest of the health insurance industry and many public mental health programs, it does not live up to the promise of managed care.[2]

The perception and experience of the public is that the practice of most MCOs does not come near reaching the potential presented in this study. For this to change and for the system of care principles to be fully integrated into the private sector, several things must happen. First, employers need to realize the value of increased mental health services among their employees and their family members. The process of educating employers could be facilitated if employees—the consumers of mental health care—understood the need for more appropriate services and a system of care approach for addressing more severe problems.

Second, there needs to be a philosophical balance within MCOs between cost containment and service delivery. The companies used as the basis for this report have demonstrated that a "service first, cost containment second" approach is not only feasible but is also marketable and profitable. Within the current fiscal atmosphere, this balance is difficult to tip toward service delivery.

Third, there needs to be a broader acceptance of the full range of service modalities. Many employers, MCOs, and service providers are still adhering to an extremely traditional mental health service model that focuses on inpatient hospitalization and outpatient therapy, with some partial hospitalization and short-term residential treatment. The MCOs and providers in the Lourie, Howe, and Roebuck study have demonstrated that a broader continuum of care is not only within the bounds of good clinical practice, but also offers better and less expensive services. Even in these situations, the health insurance basis of private sector care dictates that care be medically necessary; in response, many of these new service capacities in the private sector are medically driven. At the same time, similar public sector services,

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[2] The MCOs used as the basis for this report describe a process through which extra, "out-of-benefit" services are often authorized during the transition period to long-term public care.

from which these new private sector services were derived, are not being utilized because they do not have the same level of medical input. The services are equivalent, but a service delivery resource with vast experience and expertise is being wasted and duplicated.

The Managed Care Companies

The provision of mental health services to individuals whose care is funded by private sector sources generally is paid for jointly by those individuals and their employers. The role of the employer is to buy insurance for or to self-insure its employees; the role of the employee is to pay a premium for part of the cost of the insurance and/or a co-payment for part of the costs of the services received. Increasingly, employers and insurance companies are separating, or "carving out", mental health care from other health insurance and arranging for mental health care to be managed by a specialized company, referred to here as an MCO. These managed behavioral health, or managed mental health, care companies have proliferated across the nation over the last five to seven years.

Historically, private sector managed care developed as a reaction to the explosion of adolescent mental health hospital beds in the early to mid-1980s. This was responsible in part for the portion of the health insurance benefit used for mental health to increase 10 to 15 percent. As a response to this phenomenon, the health care industry had to either raise premiums or find a way to contain, if not reduce, the cost of this segment of care. Managed care was created as the vehicle to control mental health care costs (Goldman, 1995).

As a result, the public has developed a negative view of the role that MCOs have played in the provision of mental health services, based on the perception that this care is being driven by cost rather than by service needs. The management of care is viewed as a process designed solely to limit services. When an employer contracts with a MCO to handle its employees' mental health service needs, a benefit package is defined. The negative impression of managed care often is related to the fact that many of these benefit packages include extremely limited and inflexible care for the employee and family. In many cases, this care is limited to 30 or fewer outpatient visits and 30 to 60 hospital days per year. Often, this care requires large co-payments of up to 50 percent. This type of plan is felt to offer adequate services to 85 to 90 percent of the population. However, the other 10 to 15 percent require intensive, often long-term, mental health services and, within these limits, rapidly run out of benefits. When benefit limits are reached, several results are possible including cessation of necessary care, great personal expense, and/or shifting of the cost of care to the public sector. When care is limited, people are discouraged from obtaining it until problems become so severe that they often require intensive and expensive levels of service—namely, hospitalization. One of the things that characterizes better MCOs is their understanding of the advantages of easy access to outpatient care. They are doing this by reducing the outpatient co-payments and by integrating employee assistance programs (EAPs) with managed care, so that the EAP provides the first few outpatient visits without copayment.

For many, this negative view of limited managed care benefits has been generalized to the entire industry. However, in theory, managed care has many virtues including the potential to offer individuals more appropriate levels of care, easier access to care, and a more seamless, systematic course of care. All these results can occur at the same time that costs are brought under control. In order to achieve these positive results, managed care must be delivered so that the best, most appropriate service delivery is the primary goal, and cost containment or saving is secondary. As part of the recent Lourie, Howe, and Roebuck study, funded by the Center for Mental Health Services (CMHS), two MCOs were nominated because they held this "service first" principle. These companies served as study sites and have provided the data for this report describing how managed care can *be* and *is* delivered in a manner consonant with the concept and philosophy of public systems of care for adults with severe and persistent mental illness and children and adolescents with severe emotional disturbances and their families, as applied in the public mental health care sector. Neither MCO can be described as an ideal system of care within itself or as

part of a greater community-based, interagency system of care. Both serve as models of responsible managed mental health care and have structures that would potentially allow them to act as, or as part of, a system of care.

Discussions with parents of children and adolescents with severe emotional disturbances who were served within managed care plans also indicated that extremely positive results have occurred. In fact, because of the flexibility that is possible under managed care, many exciting intervention plans have been developed and executed. In one instance, under a private MCO, a family's care manager had formerly been a State children's mental health director. Armed with an intimate knowledge of how integrated service plans should be developed, this care manager worked with the family to construct such a plan and continually modify it as necessary. That this was possible within the structure of an MCO gives testimony to the potential inherent in the theory and practice of managed care. The failure of much managed care to provide adequate mental health services is directly related to how it is practiced, rather than to any basic limitation in the concept.

Unfortunately, the desire of most employers, insurance companies, and/or public agencies to utilize managed care is primarily driven by a need to reduce health care costs. While not all MCOs have demonstrated consumer-friendly service delivery, almost all have shown large cost savings; the study sites were able to demonstrate both. This finding should not surprise anyone who has worked in public child mental health settings or within a system of care. Most of the system of care principles are based on reducing the level of service that an individual receives to that which is most appropriate. This has been done by funding services that support families in caring for their children at home and by creating a new cadre of intermediate-level services and family support mechanisms. A major impression under the Child and Adolescent Service System Program, in the development of public systems of care has been that as services become more appropriate, costs for each individual child can be controlled and reduced because of less utilization of the most expensive services (Lourie et al. 1996).

In this current study, several issues have surfaced which appear to be related to the responsible delivery of managed mental health care to children, adolescents, and their families. The following discussion addresses the basic concepts of managed care, the operational philosophy, the practice of managed care, and the barriers to reaching the potential of managed care. Site visit reports on both of the companies used to provide information for this report, here identified as Behavioral Health Company A and Behavioral Health Company B, are included in Appendix A (p. 205).

The Basic Concepts of Managed Mental Health Care

The Customer

Unlike the public sector where the client is the customer, every MCO has three sets of customers: the employer, the beneficiary, and the provider. A major motivation within managed care is to satisfy the interests of all three at the same time. This is a difficult task because each group has its own competing needs and desires. The MCO sells its product to the employer[3]; one of the MCOs in the study goes so far to refer to the employer as the "client." The employer has two major goals; one is to control costs and the other is to make its employees satisfied and productive. Over the last 20 years, EAPs have been developed to respond to employers' needs for a more productive workforce. This desire to improve employee well-being must be balanced against the cost of care. Care management is the vehicle that MCOs use to strike this balance.

[3] Sometimes the employer buys health care coverage from an insurance company or health maintenance organization (HMO) which, in turn, buys services from the behavioral health MCO.

The second customer is the client beneficiary, usually an employee or his or her dependent. For these clients, the goal is similar to that of their employers—obtaining the best care at the lowest price. Clients fall into two groups: those who are in need of little or no mental health care (85 to 90 percent) and those who have a family member with a mental illness or severe emotional disturbance (10 to 15 percent). In the first group, price is the highest priority. In the second group, the availability of, access to, and quality of care are most important; this group has the additional need to retain a degree of control over the services that they or their children receive. To keep their employees satisfied, the employer must buy a product that balances the needs of these two client groups. Experience using managed care has demonstrated that a very small increase in the level of fees needed to serve the 85 to 90 percent of low end users of care will allow for appropriate acute care for the other 10 to 15 percent of high users[4]. Yet many employers and their employees are willing to sacrifice the needs of individuals with mental illness and emotional disturbances to save a few dollars a person, and some MCOs are willing to sell them such a product.

The third customer of the MCO is the service provider. Providers include individual practitioners, group practices, hospitals, and other institutions. Providers have their own set of goals: to earn what they deem appropriate fees and to run their practices and treat clients in the way that they feel is most appropriate. Both of these goals run afoul of managed care in that its basic principles require keeping costs down and controlling the degree and amount of care delivered. Providers are asked to accept a discounted fee for which they are offered the promise of referrals and rapid payment. In addition, they must practice within the guidelines spelled out by the care manager, regardless of how that might differ from their own clinical opinions or practice style. Every MCO has a mechanism for appealing decisions on the quantity and level of care; however, these procedures are cumbersome, and some professionals find them demeaning, not unlike the reaction of many professionals to a request by a client or insurer for a second opinion. Over time, MCOs identify providers who generally agree with their clinical guidelines, a practice which makes the process smoother. Many clinicians who do not agree with managed care practice principles feel they face the ethical dilemma of either providing what they consider to be inadequate and inappropriate services dictated by the care manager or being shut out of the referral process[5]. More responsible MCOs are willing to pay the cost of having the most highly trained and experienced professionals making care management decisions and handling appeals. In the sites studied, the MCOs created a clinical atmosphere in which clinical care management decisions were made by professionals with high-level mental health degrees[6] and a broad range of clinical experience; these individuals are called "clinical care managers." Care management in these MCOs is practiced in a manner in which there is a clinical discussion between the clinical care manager and the on-site professional. The results of this negotiation is most always the development of a treatment plan everyone agrees on. For cases demanding intensive services, an approach was instituted at the MCO's site in which treatment teams were used to assure an appropriate clinical response. In some case discussions observed during the site visits, this clinical team authorized a higher level of care or an additional service beyond that suggested by the provider.

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[4] This additional premium, about $36 per person per year extra, does not include long-term care, only the high end users of acute care. The public sector is still relied upon for meeting long-term needs.

[5] This has been accentuated by recent legal precedents in which individual clinicians and service provider agencies have been found responsible for the deleterious effects of premature termination of treatment, rather than the insurance company or MCO that denies the benefits. [see Wickline v. California 192 Cal. App. ed 1630; 239 Cal. Rptr. 810 (2d App. Dist. 1986)]

[6] Ph.D.-level psychologists; M.S.W social workers; and, master's-level clinical mental health nurses.

The Benefit Package

Another major key to moderating the needs and desires of all three customers in managed care is found in the construction of a benefit package. Through this vehicle, the employer decides how much money it will invest in mental health care and the degree to which the employee will share in the cost. Large corporations have benefit managers who set and execute company health care policy. While many of these managers have become sophisticated in their knowledge of general health care financing, only a small percentage have intimate knowledge of the differences and issues involved in mental health care. Most rely on outside consultants to develop their health care management package, and many consultants are equally ill informed about innovations in mental health care, especially those which concern children and adolescents. While this may be excused on the grounds that an understanding of mental health service delivery is still evolving, many benefit managers have inaccurate notions of the best type of mental health benefit package to seek. As a result, many employers want a benefit that is limited in scope and amount, having been convinced that these limitations still allow for responsible service delivery while containing costs. Employee organizations often have views similar to those of employers. At one of the sites, a story was told about a labor union that insisted on a traditional and limited benefit package because it did not understand (and possibly did not trust) the innovative, unlimited package proposed by the employer.

In fact, employees are more productive when their mental health needs and those of their families are adequately met. In addition, study informants asserted that a flexible, less limited benefit package reduces hospitalizations and thus costs. Both of the MCOs in the study held to the principle that a well-managed, unlimited benefit package allowed for the best and most efficient service delivery. Well-informed health care consultants are reported to steer employers toward a more inclusive benefit package and MCOs that feel comfortable working with an unlimited benefit (Goldman 1995).

The Contract and the Concept of Risk

The MCO enters into a contract with the employer to provide mental health services to beneficiaries in need. This contract specifies the manner in which this process will proceed. It includes the benefit package, as discussed above, and how the responsibility for health care costs, otherwise known as the insurance risk, will be structured. There are several basic insurance models under which MCOs operate. Some employers have a nonbehavioral MCO administer the entire health care program, including mental health. For others, the mental health portion of their health insurance is handled separately, or "carved-out." When there is a carve-out, there are three different ways in which the insurance risk is handled.

In the first and, until recently, most prevalent risk model, the employer is a self-insured company and assumes full risk for the cost of health care for its employees and their eligible dependents. The behavioral MCO's role is to manage the mental health and substance abuse part of that care, for which it receives a fee. For this fee, the MCO arranges for beneficiaries to receive the care they need, credentials a cadre of appropriate provider clinicians and facilities, and handles claims. For some employers, the MCO actually pays the claims; in other instances, the claim is paid by the insurance company that handles the company's physical health insurance. Under this type of arrangement, the MCO accepts no financial risk; it controls costs for the primary purpose of pleasing the employer and thereby keeping the contract.

A second way that MCOs work with employers is to become the insurer. Under these types of contracts, the MCOs accept full financial risk. They are paid a capitated rate (a fixed amount per member per month) and accept the responsibility for providing all of the necessary mental health and substance abuse care needs within the parameters of the contract. What makes this type of arrangement different is that the employer shifts its risk for the cost of care to an MCO. In order to operate in this manner, the MCO becomes more than a care management and plan administrator; it becomes an insurance company. Under this type of contract, the MCO has an incentive to cut costs, in some cases by restricting services.

A third financial arrangement, shared risk, is now becoming the most popular alternative. In this case, the employer remains self-insured, but the MCO has performance targets that it must meet. When costs go above this target, the MCO is responsible for the added expense which is deducted in part, or in total, from its management fee. On the other hand, in the rare occurrence when costs are below the target, the MCO reaps part, if not all, of the savings. To protect the beneficiaries from the MCOs restricting services either to avoid loss or increase profits, many contracts now include a provision to limit profit and a "stop loss" provision to limit the MCO's financial risk. Under this type of contract, the MCO and the employer share the financial risk in a way that attempts to maximize the potential for both appropriate service delivery and cost control.

The Controls

A basic tenet of managed care is the control of service utilization and costs. In addition to the limits on services that are spelled out in benefit packages, MCOs have other major mechanisms of control. In the area of provision of service, the major control vehicle is the care management and service authorization process. Care managers are responsible for assuring that only the most appropriate level and quantity of service is received by any client. Another major form of control used by MCOs concerns the use of their provider networks. Through a process called profiling, they track the utilization and quality of care of each clinician or program with which they contract. Providers who do not offer services in a way that is consonant with the service philosophies of the MCO will be counseled or removed from the network.

Employers also have mechanisms through which they can actively control the care offered by the MCO. One of these is inherent in the role of the benefit manager, the employer's liaison with the MCO. In this most important position, the benefit manager has the responsibility of monitoring how the MCO is upholding the terms in its contract, with a major focus on consumer satisfaction. As employers try to meet the needs of their employees, the benefit manager is in a position to advocate on behalf of beneficiaries to assure that they are being offered appropriate levels of care. This task includes interpreting the terms of the contract and challenging the decisions of the MCO's clinical team. Self-insured companies often allow their benefit managers to authorize care beyond the scope of the benefit package, paying for that care "out of contract." As managed care principles and practices are applied to public sector populations, the question of who will take the role of benefit manager has yet to be answered. Private sector clients have this individual as their advocate. In the public sector, this type of control over the MCOs is needed before public consumers can be assured of adequate and appropriate care.

Translating Theory to Practice: The Operational Philosophy

The operational philosophy of an MCO is the major factor in determining how close its practice will come to attaining the potential inherent in managed care theory—to provide the best and most appropriate care in the most cost effective manner. This philosophy reflects the two basic foci of managed care, service provision and cost control. Those MCOs that focus most heavily on service provision tend to present as clinical entities; those which primarily focus on cost control tend to present as fiscal entities. As a clinical entity, the purpose of an MCO is to provide the most appropriate services to an employer's employees. As a fiscal entity, its purpose is to provide a fiscal service to an employer. Every MCO develops an operational philosophy that strikes a balance between these two elements. This philosophy becomes the key to managed mental health care because it is used by MCOs as the basis for their care management policies and procedures. The negative public perception of managed care is directly related to the fact that most MCOs are viewed by the public as entirely fiscal in their philosophy. The MCOs nominated for this study appear to have been singled out because they had a strong clinical or service delivery focus, which engenders a more positive public perception. Although even these more clinically

oriented MCOs must also have a strong fiscal focus, they tend to see this as secondary to their primary service provision purpose.

During the visits with the nominated companies, a palpable tension was felt between these two philosophical foci. In accordance with their clinical emphases, both site-visited companies had hired well-trained and experienced clinical staff who were empowered to practice sound mental health care. Even though staff were chosen for and trained to practice in a style consonant with managed care, their approach was individual client-oriented which encouraged the use of their best clinical judgments. From the clinical perspective, staff appeared frustrated with providers who did not understand a new style of treatment that was short-term, home- and community-based, and within which hospitalization played a more limited treatment role. In addition, they were often frustrated by providers who did not know their clients well and who practiced by rote, rather than by understanding individual needs. Well-trained care managers feel they have an opportunity to view a client's care across services, thus gaining a perspective lost to most of the providers. Care managers attempt to develop collegial relationships with providers and are frustrated when they are met with contempt by a practitioner who may, indeed, be viewing the case out of context. Furthermore, care managers feel frustration with the limits placed on the amount and type of service they can authorize under the managed care concept in general and, specifically, under some poorly conceived individual benefit packages.

The nominated MCOs appeared able to keep fiscal concerns at a managerial level, isolating them from the clinical functions, which has the positive effect of encouraging clinically-based service delivery decisions. Fiscal issues were handled through ongoing negotiations with benefit managers and through internal management decisions. The field is young and struggling to understand the best fiscal approaches to mental health care management. As a result, the nominated companies were grappling with employers who were demanding lower costs. Some contract renewals had recently been lost, because of costs, to other MCOs which traditionally have been more fiscally oriented. It is not clear if these employers will be satisfied with a less service-oriented approach and will be willing to pay more in the future for a more clinically oriented service.

Managed Care Practice

Intake

Most MCOs appear similar from a structural point of view. Typically, care is initially accessed when a client calls a central 800 or local intake number. At this point, there is a triage function that is often performed by entry-level clinicians. After the need for care is described, a decision is made as to the acuteness of the situation and the level of care required. The MCOs in this study offered three basic triage levels. In an emergency, an immediate psychiatric assessment and/or hospitalization is arranged. In serious but less acute circumstances, a rapid outpatient evaluation is conducted by a clinician who can see the client within a period of time that is responsive to the level of crisis—often within hours. In more routine cases, a referral to a community-based provider is given, and a specific number of outpatient visits is authorized. When intake workers require help in working with an emergency situation, each of the MCOs in the study offers prompt, often instantaneous, high-level clinical consultation.

Care Authorization

After referral, the next step is to authorize services. This is a vital aspect of managed care for this is the mechanism through which the level and amount of care to be delivered is controlled. Authorization is based on two factors: the clinical guidelines of the company and the nature of the individual client's benefit package. While the guidelines dictate the level of service a client should receive, the benefit package defines the amount of service at each level that the insurer will pay for. Each benefit package specifies the level and amount of service utilization that will require care management. All MCOs use

care management to authorize and track care that is more intensive than outpatient therapy. There are various ways in which benefit package contracts stipulate the use of care management for outpatient services. Under one type of contract, a care manager must authorize any outpatient service. Under a second type of contract, a fixed number of outpatient visits, usually 10 or less, may be allowed before care management is required to authorize more. The two site-visited companies used both of these models, depending on the nature of specific benefit packages. However, on the basis that "micromanagement" is unnecessary and more costly than allowing the care, both of these MCOs prefer to allow authorization of a significant number of outpatient visits before that level of care is managed.

Clinical Care Management

The care manager is responsible for the determination and authorization of the level and amount of care provided to an individual. This is a clinical decision, but one that is made at the end of the telephone line by a professional who has never met the client. This aspect of managed care is much maligned by segments of the mental health profession. This is especially true of psychiatrists and doctoral-level psychologists who feel that they are being told how to practice by less well-trained master's-level social workers and clinical nurses. However, MCOs point to several factors that justify this form of decision making, including the use of qualified clinicians as care managers, an objective care management process, clinical care guidelines and protocols, clinical supervision and consultation, and a clinical team approach. Each is discussed below.

Qualified clinicians. Most MCOs feel that they hire qualified clinicians to perform care management jobs. The degree of training and experience of care managers is a selling point in negotiations for potential contracts with employers. At the two sites nominated, all care managers had high-level professional degrees and were eligible for licensing in their State. These workers included a fairly even mix of doctoral-level psychologists, master's-level social workers, and clinical psychiatric nurses, all of whom were required to have a wide range of clinical experiences. They are called *clinical* care managers (CCMs) and are expected to understand the clinical situations presented to them, the nature of the services available, and the implications of their decisions. Using the information they glean from the client and every professional involved in the case, the CCMS are in a position to know more about the case, the client's support network, and the services available in the community than any other single professional involved.

Objectivity. MCO's consider clinical care management to be an objective process. The CCMs are seen as being in a unique position to collect relevant data about a case and make the most valid clinical decision. They listen to family members and involved professionals in order to learn the history of the client and his or her family, determine the nature and effectiveness of the services used in the past, and evaluate the current problems and treatment approaches in the current episode. Written clinical guidelines and protocols have been developed by the MCOs to add a formal framework for organizing the data and facilitating objectivity in the decision making practice. Unlike most on-site professionals, this full range of information gathering and analysis is a major part of the CCM's job description—they are expressly paid to do this. Once they have all of the relevant clinical information to determine the most appropriate level of services, they have the information required to determine the availability and reimbursability of a full range of community resources, including important knowledge of other resources in the community that could serve the client appropriately and prevent overly intensive and restrictive placements. This process can work only when the community-based professionals accept the value of the CCMs objective observations and when the CCMs are comfortable with the quality of the on-site, face-to-face clinical observations of the family and professionals. When each values the other, they can all work together as a team.

Clinical guidelines and protocols. The guidelines and protocols developed by MCOs are an invaluable tool for the CCMs. These documents define a clinically sound process within which valid decisions can be

made. While each company has developed its own protocols, they are all based on a strict definition of the role of each type of treatment. In this way, hospitalization becomes more than a *placement*—the next step beyond outpatient treatment—it becomes a *tool,* an intervention modality used for dealing with a specified degree of personal dysfunction, risk, and need for support. Each restrictive level of service has its own role specifically defined, which informs decisions on the use of each level of service. Often, professionals find themselves prescribing a level of service based on the lack of availability of a less restrictive one. While this still happens under managed care, it is a source of ongoing frustration for CCMs. However in this case, it occurs within a system of care that is cognizant of the problem and which is constantly looking for a solution. The protocols and guidelines from the MCOs in this study are well-constructed matrices balancing individuals' care needs and the treatment capacities of various levels of service. More importantly, CCMs are instructed to use protocols only as a guide for decision making and not as a prescription. Their use is predicated on the CCM being a clinician who must make clinical decisions. For example, the guidelines from one of the study sites, Behavioral Health Company A, create a complex matrix of dimensions (behavior, risk of harm to self or others, support) versus service level. Within this matrix, the client's status under the behavior dimension may indicate a higher level of service (e.g., hospitalization) than that same client's status under the risk dimension (e.g., outpatient). This leaves the CCM to make the placement decisions based on his or her clinical understanding of the case rather than on the guidelines alone.

Clinical supervision and consultation. The next links in the chain of care management are clinical supervision and consultation. The degree to which CCMs receive support in doing their jobs and the nature of that support defines an important aspect of care management. An important aspect of the policy of both MCOs in the study was viewing supervision as a clinical tool rather than as a management strategy. During site visits to both programs, the supervision of CCMs was said to be for the purpose of improving clinical decision making and not for the purpose of assuring that corporate performance goals were met. These two MCOs also offered psychiatric consultation to their CCMs, including full-time psychiatric availability to help in making difficult clinical decisions. In fact, both of these companies had child psychiatrists available to work with CCMs on child and adolescent cases, helping to assure that age-appropriate, family-oriented clinical judgments are made. When supervision is not clinically oriented and is restricted to assuring that guidelines and protocols are being adhered to, the CCMs will be left in a position that undermines their role as professionals and allows them to be only managers.

Clinical team approach. When observed during site visits, the supervision and consultation systems of both nominated MCOs gave the feeling of a clinical team approach to care. The nature of the case discussions was similar to meetings which take place in a community mental health clinic or on a hospital ward conference room. Regardless of the fact that the information used had been gleaned over the telephone from on-site providers and family members, the clinical team operated like any other, trying to make the best decisions possible. At no time during these team meeting/consultation sessions were their formal "guidelines" or "protocols" referred to; it was as if they did not exist and that the decisions made were based on purely clinical judgments. However, this approach did not prevent some of the discussions from ending with decisions dictated by the coverage allowed under a client's specific benefit package and the need to fit the disposition within these limits or to manipulate the benefit. It was only at these moments that the observer became aware that this was an MCO. On the positive side, the company staff perceived the benefit limits as a major object of frustration and talked about the need for all employers to accept the concept of an unlimited benefit, which would still allow the care to be managed but provided in a more appropriate manner. In some cases, they were able to "flex" or manipulate the benefit to better fit the client's needs.

At the Behavioral Health Company A site, CCMs and psychiatrists met in daily "hospital meetings" in which all cases in hospitals and other institutional settings were tracked and the care discussed. While one of the major functions of these meetings was to monitor the use of the more expensive and intensive services, they seemed to act primarily as the vehicle for teaming. Each CCM was assigned to a different

daily hospital meeting than his or her supervisor. This created the daily opportunity for a second opinion on difficult cases that was based on purely clinical decision making and was free of any management issues that might come up between CCMs and their direct supervisors.

Service Array

Regardless of clinical philosophy and care management policies, managed mental/behavioral health care can only reach its theoretical potential when the MCO provides a broad array of services. Many traditional insurance plans allow for only outpatient and acute hospitalization services. When MCOs write contracts with employers that provide only these limited services, the opportunity is lost for the provision of the most appropriate level of service and the resultant cost saving possible under managed care. When a broad service array *is* offered, the CCMs have the ability to arrange for the least intensive service required, which often reduces the costs.

Traditionally, as the array of services has been expanded in the private sector, it has been built on the principles of the medical model. To some degree this has occurred because health insurance has been based on the concept of medical necessity, under which only medical treatments aimed at diagnosable conditions are reimbursable. In the past, this principle has limited the scope of most medical insurance coverage to traditional medically oriented mental health interventions -- outpatient therapy and acute inpatient hospitalization. As a result, the expansion of private sector service capacity has been primarily in the development of partial or day hospital programs. These modalities are a perfect match for managed care, because they are direct extensions of medical hospitalization (often performed by the same staff in the same institutions) and are easily justified as medically necessary. In addition, the cost savings of partial hospitalization are so significant in comparison to the cost of inpatient care that, in itself, it can make most managed care contracts affordable. At one program site, it was said that its placement problems would be more easily solved if every community had a partial hospital program.

The broad array of services utilized in public sector systems of care generally has not been embraced by private health insurance, including managed care. Most of these services such as therapeutic foster care, in-home treatments, respite care, family supports, and crisis interventions do not easily meet the test of being necessary to treat diagnosable mental illness. Rather, they have been considered ancillary and rehabilitative in nature. Worse, they may also be considered to be social services because they respond to residential and support needs, rather than to medical necessity. However, it is the use of these services that has allowed systems of care in the public sector to become more responsive to individual needs. While some insurance companies and MCOs, including those in this study, are beginning to support a greater range of service options, most of these "intermediate" services are still being developed for and used by children and families in public sector care.

The two MCOs in the study have begun to expand the array of services that they considered appropriate for use under private mental health care insurance. They have become more flexible in interpreting the concept of medical necessity. Both have adopted guidelines for in-home services; one, Behavioral Health Company B, has developed a protocol for "alternative services," which includes not only in-home services, but also a flexible type of benefit that can support a wide range of services including respite and crisis residential. Its use of these nontraditional services is based on the understanding that with children and adolescents, these service innovations can prevent or shorten hospitalizations and other institutional placements while still meeting their medically defined treatment needs. In addition, both programs talk about "flexing of benefits" and wraparound services; however, the medical nature of their basic approach does not easily lend itself to these historically nonmedical approaches. As a result, service arrays are moving closer to being a full continuum of categorical care components, rather than offering a truly individualized service.

Provider Network

Each MCO has a provider network of clinicians, practice groups, and institutions with whom it has contracts. Within these contracts, the provider agrees to practice within the guidelines developed by the MCO and to accept a prescribed, discounted fee. In return, the provider receives volume and rapid, uncomplicated remittance of insurance dollars. The provider is responsible for the collection of any copayment due from the client. In addition, the provider is responsible for the ongoing review of progress toward treatment goals, reporting to the MCO and obtaining authorization from it for future care. In some plans, providers may agree to share financial risk for the care provided.

MCOs have a system for the credentialing of professionals as providers. This is a quality assurance mechanism in which training, licensing, and quality of care are validated so that only qualified clinicians are invited into the network. MCOs also have a system for rating, or profiling, providers. While the details of this practice are not shared externally, they tend to be related to the ability to practice within the company guidelines, availability (percentage of practice devoted to network clients), and the number, frequency, and nature of consumer complaints. Highly rated providers receive priority in the referral system. In some instances, low rated providers are dropped from the network.

A growing concept within managed care is the development of so called "anchor" or "clinical" groups. These entities are both group practices and mental health agencies that have assembled a community-based group of managed care friendly clinicians and/or program components. Over time, an MCO recognizes the anchor group's potential to provide care in a manner that is sympathetic to the MCO's care management policies. This has positive benefits for both the MCO and the anchor group. The MCO saves both care management and administrative costs by not having to manage care provided by these groups as closely as it would others. The MCO can do this because it knows that referrals will be accepted and emergencies responded to immediately. The group saves administrative costs and avoids the headache of someone always looking over its shoulder to micromanage it. Anchor groups are seen as preferred referral sources in a community and may even be paid preferential rates. Often, they are encouraged to expand both the scope and quantity of the services that they offer. Both MCOs nominated for this study were in the process of identifying or organizing group practices in major population areas.

Providers also include facilities such as hospitals. The MCO develops contracts with specific hospitals in communities where beneficiaries live. These contracts often have sharply discounted fees, because of the large volume of clients they serve and the degree of the local market they control. This leaves the hospitals and their attending medical staffs vulnerable to the cost-saving efforts of the MCOs and forces them to practice in a more managed care friendly manner. Other nonmedical facilities are now contracting with MCOs to provide the intermediate services included in the continuum of care. Occasionally, entire clinics have been credentialed as a provider; however, in most instances, each clinician at a clinic must become an individual member of an MCO's provider network.

The sites that were studied felt they had good rapport with the bulk of network providers and had few conflicts with them over clinical decision making[7]. The decision appeal process seemed to be used mostly by non-network providers who were not comfortable with the clinical guidelines prescribed by the company. Each MCO has a process by which providers can appeal for authorization of previously denied services. It is popular for MCOs to tout the degree of professionalism involved in these appeals, stating that they are handled by peers or by physicians. This appears to be done in order to mollify disgruntled professionals and clients and to minimize litigation.

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[7] The service provider agencies in this study gave equally supportive feedback on their relationships with the two MCOs in the study. As in any provider/MCO interrelationship, even this positive feedback turns sour when both the provider and MCO have to work within a limited benefit package.

From the client perspective, the benefit package determines how providers are accessed. There are a number of ways the network can be structured for the beneficiary. These include exclusive provider organizations (EPOs) and preferred provider organizations (PPOs). When an EPO is prescribed in the benefit package, the client may use only providers in the MCO's network. If they choose to access services elsewhere, clients must pay the entire cost. With a PPO, clients receive a cost advantage when obtaining services from a network provider but may also choose noncontract providers. Usually, they will have to pay more to use the non-network services. Open use of any provider in the community, or the inclusion of "any willing provider" in a provider network, is beyond the concept of managed care which relies on contracts with providers to manage the care, control costs, and assure quality services.

Specific Child and Adolescent Approach

Those who provide mental health care to children, adolescents, and their families know that such care requires a specialized child and adolescent approach if the services are going to be appropriate. The MCOs in this study prided themselves on their child and adolescent focus, which they supported by making available child-trained CCMs and/or supervisors and the developing of specific child and adolescent practice guidelines or protocols.

Often child and adolescent care issues are handled by CCMs who have no specific child training; in fact, this was true in one of the study sites. The underlying theory for this is that clinical decisions can be made from the generic perspective and that the MCO's clinical guidelines will fit individuals of all ages. While it is true that many of the factors that determine the level of care are similar for children and adults, the two MCOs in the study each had a preface to their children's guidelines that described how the child and adult populations were different and why they required separate approaches. The special focus on the children and adolescents was primarily related to families and the role they must play in the care of their children. Both MCOs highlighted family therapy and saw that approach as primary in the intervention for most child and adolescent problems. Also highlighted was the critical role growth and development play in the life of a child and in the structure of an intervention approach. Similarly, as discussed in more depth later, the family is seen as having a primary role in the mental health care of children and adolescents.

A child-trained clinical staff can help assure an adequate child and adolescent focus. This is actualized in one of the study sites, Behavioral Health Company A, by the use of specialized child and adolescent CCMs for all age appropriate cases. Both MCOs insisted on the availability of proper child and adolescent supervision and clinical consultation. In addition, each had hired board certified or eligible child psychiatrists as consultants.

The Role of Psychiatry

At a time when the role of the psychiatrist is continually in question in public systems of care, the MCOs in this study, as well as many others, felt strongly that psychiatrists must play a major role in the clinical care in managed care approaches. This appears to relate in part to the negative perception among providers that clinical decisions are being made by low level professionals. This feeling is especially true among psychiatrists, some of whom complain that the practice of medicine is being controlled and directed by nonphysicians. While no MCOs have physicians working as CCMs, an increasing number use them for review of appealed care decisions. This allows for a psychiatrist who is displeased with the level and amount of care authorized by a CCM to discuss and plead the case with a peer.

The site-visited MCOs also felt that psychiatrists played a vital role, that of clinical consultant. As discussed above, the care management process needs the support of well-trained and experienced professionals. Since the decision making process is felt to be based on medical necessity, it makes sense for these consultants to be medical professionals. Finding psychiatrists who believe in the concepts of

managed care and who understand the use of the full continuum of care is very difficult; finding similarly trained child and adolescent psychiatrists is even more difficult. As a result, many of the physicians hired are inclined, because of their training and experience, to approve more restrictive services, rather than to recommend newer nontraditional alternatives. Discussions with training directors suggest that training programs do not emphasize the elements of managed care, and are unlikely to prepare psychiatrists, or any other mental health professional, for this type of work. This limits the capacity of MCOs to operate their services efficiently.

Family Involvement

Family involvement is not alien to the concepts of managed care. Within the concept of "customer," the parents of children or adolescents in need of mental health care certainly become equal consumers with their youngsters. When the philosophy of an MCO focuses on the special nature of child and adolescent care, a strong family focus usually follows. The MCOs in the study had special guidelines and care management functions for this population. In justifying this child-oriented approach, both MCOs pointed to the role of the family in the support and care of the child and adolescent. However, because clinical decision making in difficult cases is made in company-based teams, it is difficult if not impossible for parents to be included in the treatment planning process. As a result, this family approach may not necessarily be family friendly. Both MCOs offer a traditional family systems approach.

A positive result of a family focus is the availability of family therapy that follows from it. Unlike most insurance companies, who will pay only for individual therapy and not "family therapy," both MCOs in the study encouraged family-based approaches. While they overfocused on "family dysfunction" as the reason more intensive levels of services were needed for many children and adolescents, they did accept the positive role that families play in the support of their children. There is a strong belief that families are the key to successful child and adolescent intervention. But, even strong families who are trying to cope with an extremely difficult child or adolescent are seen as needing to be fixed, rather than as resources that need to be better supported and involved in service delivery as partners.

Cultural Competence

The concepts of special approaches for cultural and ethnic differences do not yet seem to be well accepted in the private managed care sector. Cultural competence is primarily seen as the need to make culturally similar referrals. Observations during the site visits indicated that there is little recognition of how cultural differences affect the care management process and/or the clinical care provided. A frequently proffered reason for the lack of attention to cultural competence is the "homogeneous nature of the managed care population." Many opportunities to provide culturally appropriate services are lost, as are any increases in the efficiency of service delivery that might accompany them. While MCOs have been able to dodge the issue of cultural diversity in the private sector, they will have to develop a new sense of cultural competence in order to meet the needs of the public sector populations they are now beginning to serve.

Barriers to the Managed Care Potential

While there is much positive potential in managed care as demonstrated by model programs, there are many barriers to that potential being realized in typical current practice. It is the presence of these obstacles and the resultant methods of care management implementation that has promulgated the negative picture of managed care. The state of the art is such that a small deviation from the theoretical application of managed care principles can lead to major restrictions in the availability, affordability, and quality of care. Thus, it is misleading to present a positive depiction of this practice without pointing out the difficulties that reduce managed care's positive potential.

Profit Motive

Private sector MCOs are profit-making organizations. As such, they have entered into the health insurance marketplace to make money. No one has developed a standard that says how much profit is acceptable when the provision of care to sick people is the nature of the business. There are three major ways to increase profits in health insurance: raise prices, be more efficient, and restrict services. The realities of the cost-cutting undercurrent of managed care and market competition rule out higher prices. This leaves service limitation and increased efficiency as the only ways to make a higher profit. As one would hope, and as theory would dictate, increased efficiency is a major goal of managed care and to some degree is practiced by every MCO. However, in the public's perception, restriction of service is the most frequently used vehicle for increasing profit.

Cost Containment and the Market Place

Managed care was created for the purpose of containing the costs of health care, and most employers who have chosen to use it do so for that purpose. As discussed earlier, managed care principles call for a balance between cost control and service delivery. Unfortunately, many employers do not fully appreciate this balance and focus entirely on lowering costs. This is accentuated by competition in the health care insurance market place. To obtain new business, MCOs have resorted to promising lower and lower costs, while still providing an adequate service. Many have reached the limits of cost reduction and, in order to maintain profits, must in some way begin to reduce services to beneficiaries. This has led to the development of limited benefit packages and to care management practices that discourage care at all levels. In addition, lack of blended funding streams from public payers can make care coordination even more difficult.

Medical Necessity

The principle of medical necessity is an underlying concept within the provision of health insurance. Simply stated, it means that health insurance should pay only for medical procedures performed in the treatment of a specific medical diagnosis. Without discussing the general failure of this concept to meet the needs of many children and adolescents with emotional problems and mental illness, medical necessity undermines a basic tenet of the best practice of managed care demonstrated at the study sites—an unlimited benefit. These MCOs have recognized that offering a full range of services, many of which do not meet the criterion of being medical and are aimed at offering support rather than amelioration of a diagnostic condition, is the most efficient practice. This brings down cost and offers a better mental health intervention. However, by adhering strictly to a medical necessity-driven model, many MCOs are limiting the potential of the managed care they deliver.

Inadequate and Unavailable Services

Well-practiced managed care requires both the availability of clinicians who understand its principles and the accessibility of a full array of services. Each clinician must be competent and willing to operate as a team with the MCO. Given the reluctance of many clinicians to accept these principles and the limited availability of many services in most communities, this is a tall order. The shortage in full service capacity along the continuum of care limits the degree to which hospital lengths of stay can be reduced, hospitalizations can be diverted, and costs can be lowered. In addition, many MCOs do not understand or yet appreciate the need for the full array of services necessary to meet the needs of children and adolescents with emotional disturbances.

Acute Care Focus

At this time, managed care focuses almost entirely on acute mental health care. It relies on the public sector mental health and other agencies to accept individuals whose service needs exceed those in their benefit packages. From the standpoint of cost, this is a major benefit for the MCO as it "cost shifts" the expense of higher level care to public dollars. However, the split between the acute services within the MCO and long-term, public sector care often prevents that "shift" from being timely. The MCOs in this study felt that, in attempting to provide services responsibly, they had spent a great deal of money on the care of individual children and adolescents before their care was picked up by the public sector. Further, this split limits the potential to deliver truly systematic care. As MCOs become involved in providing managed care to public sector mental health programs, there is hope that they will develop an understanding of how to bridge the gap between acute and long-term care, which will also benefit their private sector clients.

Family Dysfunction Focus

Although they are among the MCOs with a family focus, even the study sites have not embraced an image of families as full members of the treatment team. Families of children and adolescents with emotional disturbances continue to be seen as dysfunctional and as needing family treatment. This is contrary to the view of family members as important resources, a perception that is growing in the public system of care for children and adolescents with severe emotional disturbances. The failure to view parents from the perspective of their strengths denies the MCO the opportunity to use them as an intervention resource. This problem is not unique to managed care. It is prevalent among both public and private mental health service providers. However, as they attempt to offer services in the most efficient and cost effective manner, MCOs may miss the opportunity of utilizing the family as a resource which limits the MCOs' potential.

Lack of Cultural Focus

Cultural competence as a theory or practice has not made a major impact on the private mental health sector or managed care. Part of this follows from the often heard managed care claim that they serve a uniform, middle-class population. The prevailing feeling has been that having a therapist of the same sex, color, or ethnic background, or one who speaks the same language, is sufficient attention to cultural diversity. The failure to become more culturally competent is widespread among most public and private providers and limits the efficiency of the services offered. The concept of cultural competence leads one to believe that services so delivered will be used more freely and be more effective. By failing to take advantage of culturally appropriate treatment resources, the MCOs miss the opportunity to provide a better, more effective, and, ultimately, less costly service.

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Chapter 4

Behavioral Health Care in HMOs

Thomas H. Dial, Ph.D.
Christopher Bergsten, MHA
Data and Resource Center

Aileen Kantor
A.K.I.

Jeffrey A. Buck, Ph.D.
Center for Mental Health Services

Mady E. Chalk, Ph.D.
Center for Substance Abuse Treatment

Introduction

Health maintenance organizations (HMOs) are health care delivery systems that provide health care services in exchange for a prepaid, fixed fee. In recent years, HMOs have become one of the fastest growing types of health coverage available.

Originally conceived in the early 1920s as "prepaid group practices," these organized delivery systems were developed largely as a result of the opening up of the West by the railroads and the industrial revolution that followed (MacLeod 1993). Over the next half century, support for organized types of delivery systems grew slowly, and landmark HMO legislation was passed in the early 1970s. During this time, with increased Federal funding for planning and development, these "prepaid practice" plans were recast into the popular plans known today as HMOs. In 1975, 166 HMOs existed nationally, enrolling 5.8 million persons. By 1995, there were about 600 HMOs providing health care services to more than 51 million members nationally (Group Health Association of America 1995b).

The nature of HMOs, and their coverage and provision of behavioral health care, are obviously subjects of great concern. After reviewing specific characteristics of HMOs, this report covers two topics related to their provision of behavioral health care. The first concerns staffing levels of physician and nonphysician mental health providers, particularly those of psychiatrists. The second provides information on HMO benefits for mental health care, and the utilization of such services in HMOs.

HMO Characteristics

Traditionally, HMOs offer comprehensive health care services, ranging from primary care office visits to highly sophisticated medical interventions. Benefit packages cover a full range of health care services, including physician and hospitalization costs, mental health coverage, outpatient procedures, laboratory tests, home care, x-rays, and rehabilitation. Many HMOs also provide a prescription drug benefit, as well as a number of health education and wellness programs to encourage members' healthy lifestyles.

HMO services are provided through networks of physicians, hospitals, and other health care professionals, that either work directly for the HMO, or work under contract. There are four traditional types of HMO models; these include staff, group, independent practice association (IPA), and network.

Staff Model. In this model, the HMO directly employs physicians and other health care professionals. As salaried employees of the HMO, they provide care exclusively to the HMO members.

Group Model. In a group model, the HMO contracts with one or more group practices to provide health care services to the HMO members. These practices operate as independent partnerships or professional corporations, with the HMO paying the groups at negotiated rates. Each group is responsible for paying its physicians and staff, and for covering the costs for hospital care or care from outside specialists.

IPA Model. IPAs generally include physicians or associations of physicians in private practice, who are either paid a fee or fixed amount per patient. Many physicians in IPA model HMOs are in private practice, often caring for significant numbers of patients who are not HMO members.

Network Model. Like the group model, network models contract with one or more group practices to provide health care services. These groups also provide care to a substantial number of patients who are not the HMO's members.

Mixed Model. Some HMOs are in a category that has been frequently referred to by the health care industry and press as "mixed models." These plans combine two or more of the four basic model types. For example, one HMO may serve some of its members through a group model arrangement, and others through a network model arrangement, although all the members belong to the same HMO.

HMOs with Point-of-Service Options. A pronounced trend in the health care marketplace is the dramatic growth of open-ended HMO plans, sometimes referred to as point-of-service (POS) products. Many HMOs have recognized that a major impediment to enrolling members has been the reluctance of individuals to forfeit their ability to receive reimbursement for using nonparticipating providers. HMO members covered under these types of benefit plans are allowed to make a coverage choice at the point of service. The indemnity coverage available under POS options from HMOs typically incorporates high deductibles and coinsurance to encourage members to use HMO services instead of out-of-plan services. In 1994, more than sixty percent of HMOs had a POS product.

Cost Sharing

Today, there are a variety of HMO "purchasers" -- parties responsible for paying HMO premiums. While many health benefit plans, such as HMOs, are employer-based and provide health insurance to employees, their dependents, and retirees, the Federal and State governments also are active HMO purchasers. HMOs also offer individual coverage for those who are unemployed, those who lack coverage from their employers, or those ineligible for government programs.

Although HMO premiums are generally paid by employers, through self-pay, or by the government, there are three forms of cost sharing -- copayments, deductibles, and coinsurance. Copayments are fixed dollar amounts that enrollees must pay each time they receive a specified service. Deductibles, more typical in traditional health insurance, are fixed dollar amounts members must pay each year before the insurer begins to cover the cost of care. Coinsurance is the payment by a member of a percentage of the total premium cost.

Federal Qualification

In 1973, with HMOs gaining increasing popularity, the Federal Government passed the Federal HMO Act of 1973 which, among other things, created "federally qualified HMOs."

By becoming federally qualified, HMOs were able to participate in the Medicare program, which provides health care services to the elderly, and Medicaid, offering health care services to the indigent. By the end of 1994, more than half (51.2 percent) of all HMOs were federally qualified (Group Health Association of America 1995a).

For Federal qualification, an HMO must provide 10 basic benefits to its members, most of them without limits. These benefits are:

- physician services and referrals,
- hospitalizations,
- well care, prenatal care, periodic health evaluations, eye examinations and ear examinations for children under age 18, immunizations, and infertility services,
- emergency room treatment inside and outside the HMO's service area,
- diagnostic services, including lab tests,
- outpatient, inpatient, and short-term rehabilitation services,
- physical, occupational, and speech therapy,
- detoxification and referral services for alcohol and drug abuse or addiction,
- home health care, and
- outpatient mental health benefits (20 visits).

The HMO Act also limited patient cost sharing by requiring that copayments not exceed 50 percent of the cost of providing any single service, nor, in aggregate, more than 20 percent of the cost of all basic health services. Under the Act, the total of all copayments made by an HMO member in one year may not exceed twice the annual premium for that member's coverage. It also prohibits deductibles for basic benefits, except for point-of-service plans (sometimes called open-ended HMOs).

While coverage for outpatient mental health services is one of the ten required benefits, coverage for inpatient mental health services is not. In non-qualified as well as federally qualified HMOs, members typically receive comprehensive prepaid mental health benefits with minimal cost sharing. However, many HMO members are subject to limits on their mental health coverage, defined as either an inpatient day limit, an outpatient visit limit, or a dollar limit beyond which the plan no longer pays.

How HMOs Compensate Health Care Providers

HMOs compensate health care providers in a variety of ways, ranging from managed fee-for-service (FFS) to financial reward systems (*e.g.*, withholds and bonuses) (Goldfield et al. 1992). These options depend on agreements established between the HMO and contracting provider.

Common forms of provider reimbursement in HMOs include managed FFS and capitation. In a managed FFS system, providers are paid a discounted fee for specific medical service, which reflects a discount off the usual and customary charge or fee schedule based on claims data. This payment may or may not include ancillary services and tests, such as laboratory and supplies. While many industry experts believe that managed FFS is effective in controlling costs, others contend that capitation represents the most effective means for influencing health care costs and providing decision-making autonomy to the physician (Goldfield et al. 1992). Capitation pays a provider a set amount of money per enrollee per month, regardless of member use or service cost, although consideration is given to the age and gender differences of the enrolled population. This method of payment is used instead of payments per each unit

of service rendered by the provider. Capitation is thought to be the most popular form of physician reimbursement in HMOs. Although capitation can be offered to providers in many formats, there are three basic approaches:

1. A capitation amount is paid to the primary care physicians by the HMO; the HMO pays referral physicians on a discounted FFS schedule;
2. A capitation amount is paid to the primary care physicians by the HMO; the primary care physicians are then responsible for paying the referral physicians.
3. A capitation amount is paid to the physician organization by the HMO; the physician organization then determines how to pay all the physicians, whether through capitation, fees, or some combination thereof.

As in other industries, bonuses (monetary awards) are used by HMOs for providers that meet or exceed performance standards. Providers are often offered added compensation beyond their direct payments, through risk and bonus arrangements. These are payments distributed to providers based upon their ability to meet specific goals as established by the HMO. In risk pools, sums of money are set aside by an HMO for distribution to a physician or group practice. Typically these funds, which exceed the capitation rate, are a percentage of an HMO's profit and distributed to providers if they have met agreed upon performance goals.

Withholding a percentage of a provider's capitation is another payment method. The withhold, typically 5 to 15 percent of the capitation payment, may be returned to the provider if the physician, group, or plan meets financial targets.

Finally, to guard against unexpectedly high incidences of specific high-cost procedures, HMOs often use stop-loss insurance. Under an arrangement with an insurer, the HMO protects its capitated providers and/or its risk pool arrangement from high-cost health care. For example, a health plan may provide a stop-loss to participating physicians for referral expenses over $3,000. When a case exceeds that amount in a single year, the plan no longer deducts those costs from the physician's referral pool for the remainder of the year.

Physician Participation in HMOs

Physician participation in HMOs and other types of health care networks has steadily increased throughout the 1990s (American Medical Association 1995). The American Medical Association (AMA) 1990 and 1994 Socioeconomic Monitoring System core surveys of nonfederal, patient care physicians (excluding residents) revealed trends in physician contracting with network-based health plans.

In 1994, 77 percent of physicians contracted with network-based health plans, compared to 61 percent in 1990. This represented an overall increase of 24 percent from 1990 to 1994, although the rate of growth differed greatly by physician specialty and other physician characteristics.

For example, obstetricians/gynecologists had higher participation rates in all types of health care networks than any other specialty (88 percent) in 1994, while psychiatrists and emergency room physicians had the lowest participation rates (58 percent and 40 percent, respectively).

HMO contracting rates varied as well. More than 40 percent of internal medicine subspecialists, surgical subspecialists, pediatricians, and obstetricians/gynecologists contracted with HMOs in 1990. By contrast, 14 percent of psychiatrists did so during the same year. This was the lowest percentage of all specialties. By 1994, the percentages of internal medicine subspecialists, surgical subspecialists, and obstetricians/gynecologists contracting with HMOs grew to more than 60 percent, while psychiatry was at 29 percent. Although lower than in other specialties, the percentage of psychiatrists contracting with

HMOs more than doubled in four years.

Besides questions about HMO contracts, the AMA survey also asked physicians to estimate their share of revenue from HMOs as well as other types of network-based health care plans. Overall, physicians reported that 28 percent of their revenues came from managed care in 1990. By 1994, when physicians were again asked to specify percentage of revenue by plan type, the percentage of revenues had dropped to 21 percent for all physicians. By specialty, surgical subspecialists and pediatricians reported that 25 percent of their revenues came from HMOs, while psychiatrists reported that 23 percent of their revenue came from HMOs in 1994.

Physician and Nonphysician Mental Health Provider Staffing Levels in HMOs

The physician-need projections made in 1980 by the Graduate Medical Education National Advisory Committee (GMENAC) under FFS arrangements are significantly different from the estimates of the number of physicians required in a managed care environment (Health Services and Resources Administration 1980). This gives rise to discussion about the number of physicians needed to care for the population as network-based health care expands. This question is especially relevant to psychiatrists, as the estimated decline in the demand for their services in a managed care environment is especially sharp. Some experts contend that the number of psychiatrists employed or under contract with HMOs will decline in the future (Mulhausen and McGee 1989, Sauve 1996).

Over the past decade, concerns about controlling the cost of care for mental illness and substance abuse has led to a careful scrutiny of mental health benefits and coverage limits. HMOs have been viewed by health care industry analysts as one way to balance the demand for mental health services with the need to control costs.

HMOs hire or contract with a variety of mental health professionals, including psychiatrists, psychologists, social workers, psychiatric clinical nurse specialists, and other nonphysician providers. An optimal benefit design for an HMO mental health program provides adequate coverage for inpatient and outpatient treatment by psychiatrists, as well as covering cost-effective treatment providers from various professional disciplines.

In late 1993 through early 1994, the Group Health Association of America (GHAA) initiated a study to describe clinical staffing ratios in a relatively large, representative sample of staff- and group-model HMOs (Dial et al 1995). Staff- and group-model HMOs were chosen, because they can provide accurate data on both staffing and the populations they serve, offer comprehensive care, and use an efficient mix of generalists and specialists. (See also the staffing information provided in Chapter 7, particularly figure 7.9 and table 7.8; and in Chapter 10, particularly table 10.3, for contrasting data on specialty providers.)

Study Methods

The clinical staffing survey was mailed in December 1993 to medical directors of all 106 GHAA member HMOs that were either pure staff or group models, or mixed models that included group or staff model components. Fifty-eight HMOs responded, yielding a 54.7 percent response rate. Four responses that identified their predominant model type as either network or IPA were excluded from the survey results.

The data collected included percentages of enrollment made up of women of childbearing age, children, and Medicare or Medicaid recipients; numbers of full-time equivalent (FTE) physicians and vacancies overall and by profession; descriptions of the use of advanced practice nurses (APNs) and physician assistants (PAs) for patient care and other functions; and the use of target staffing ratios and

other criteria for projecting staffing needs. Respondents were asked to exclude hospital-based staff from their counts of both FTE physicians and nonphysicians. The study also asked the HMOs to report the minimum number of hours physicians and nonphysicians must work per week to be considered full-time. Analysts examined unweighted and enrollment-weighted means, standard deviations, and quartiles to describe physician and nonphysician staffing patterns and how they vary by model type and size.

Findings

Fifty of the 54 HMOs provided usable data on the number of FTE primary-care physicians. Thirty provided usable data on the total number of FTE psychiatrists on staff or under contract, and 26 provided FTE data on social workers, licensed clinical psychologists, and psychiatric clinical nurse specialists. Nonresponse was not significantly different for HMOs by primary model type or enrollment size.

Full-time standards for physicians ranged from 27 to 50 hours per week; half of all responding HMOs reported 40 hours. Some HMOs reported that they excluded hours spent doing hospital rounds from this standard, while others included such hours. Ninety percent of HMOs defined "full-time" for all types of nonphysician providers as more than 35 hours, and 60 percent defined it as 40 hours or more.

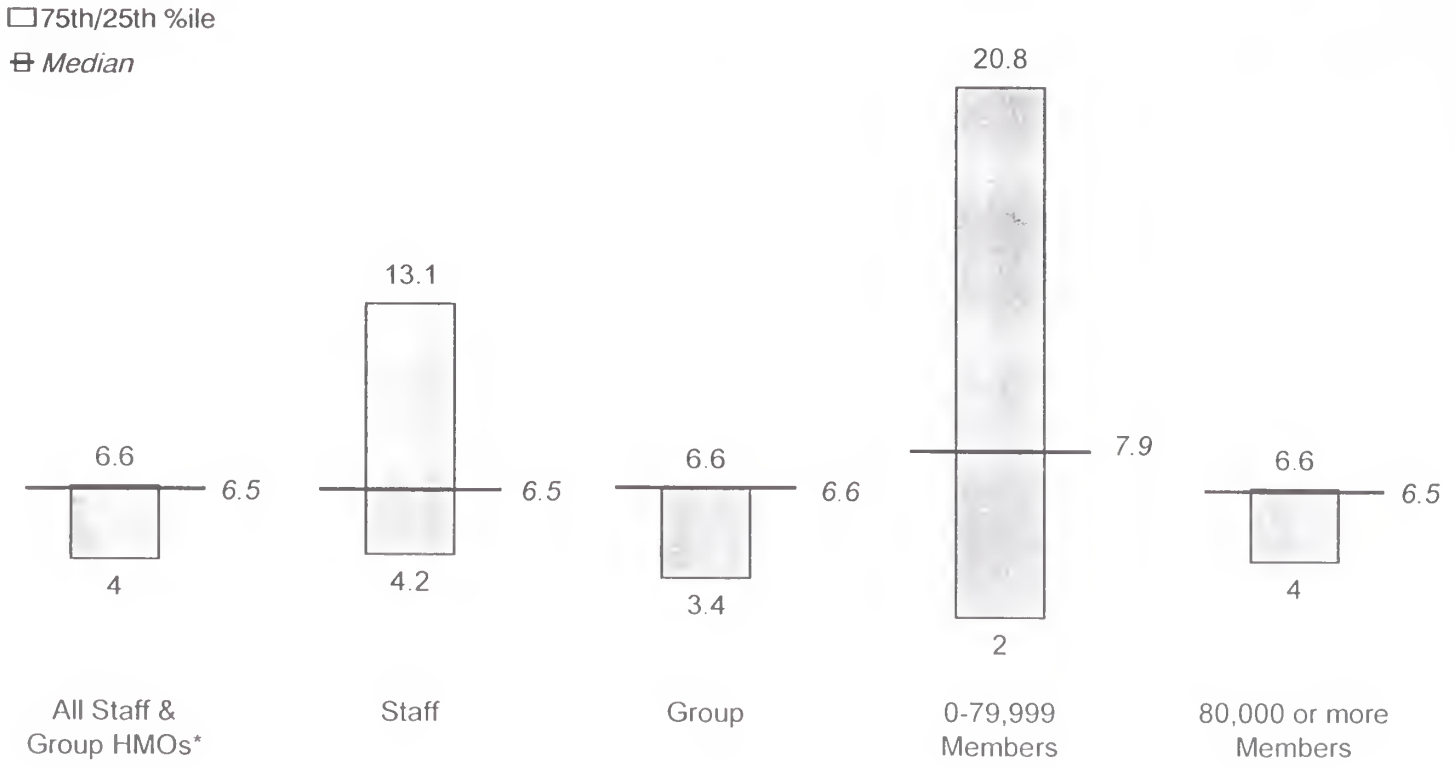
Physician staffing ratios

Figure 4.1 presents total numbers of FTE psychiatrists per 100,000 members. The overall median ratio was 6.5.

Figure 4.2 presents total numbers of FTE nonphysician psychiatric professionals per 100,000 members. The overall enrollment-weighted ratio was 27.6. The number of nonphysician psychiatric professionals per 100,000 members varies greatly by enrollment size. Therefore, it was hypothesized that the smallest HMOs might tend to be young plans operating in "start-up" mode. This does not seem to explain the difference between size categories, however. None of the HMOs represented in Figure 4.2 were less than two years old at the time of the survey.

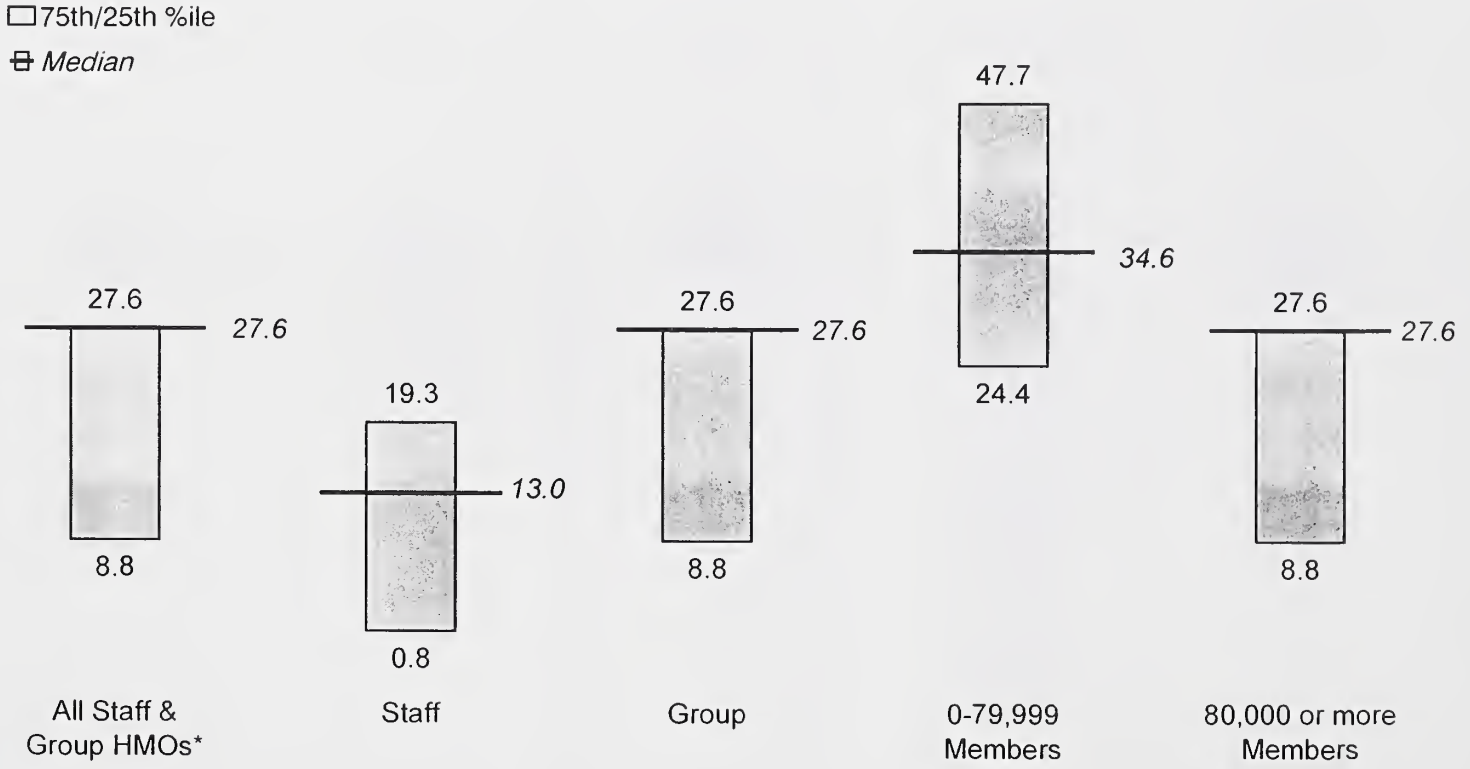
Like the ratio of nonphysician psychiatric professionals to members, the weighted ratio of nonphysician psychiatric professionals to psychiatrists tended to be higher, and to exhibit greater variability in HMOs with fewer than 80,000 members than in larger HMOs (Figure 4.3).

Figure 4.1. Full-time Equivalent Psychiatrists per 100,000 HMO Members



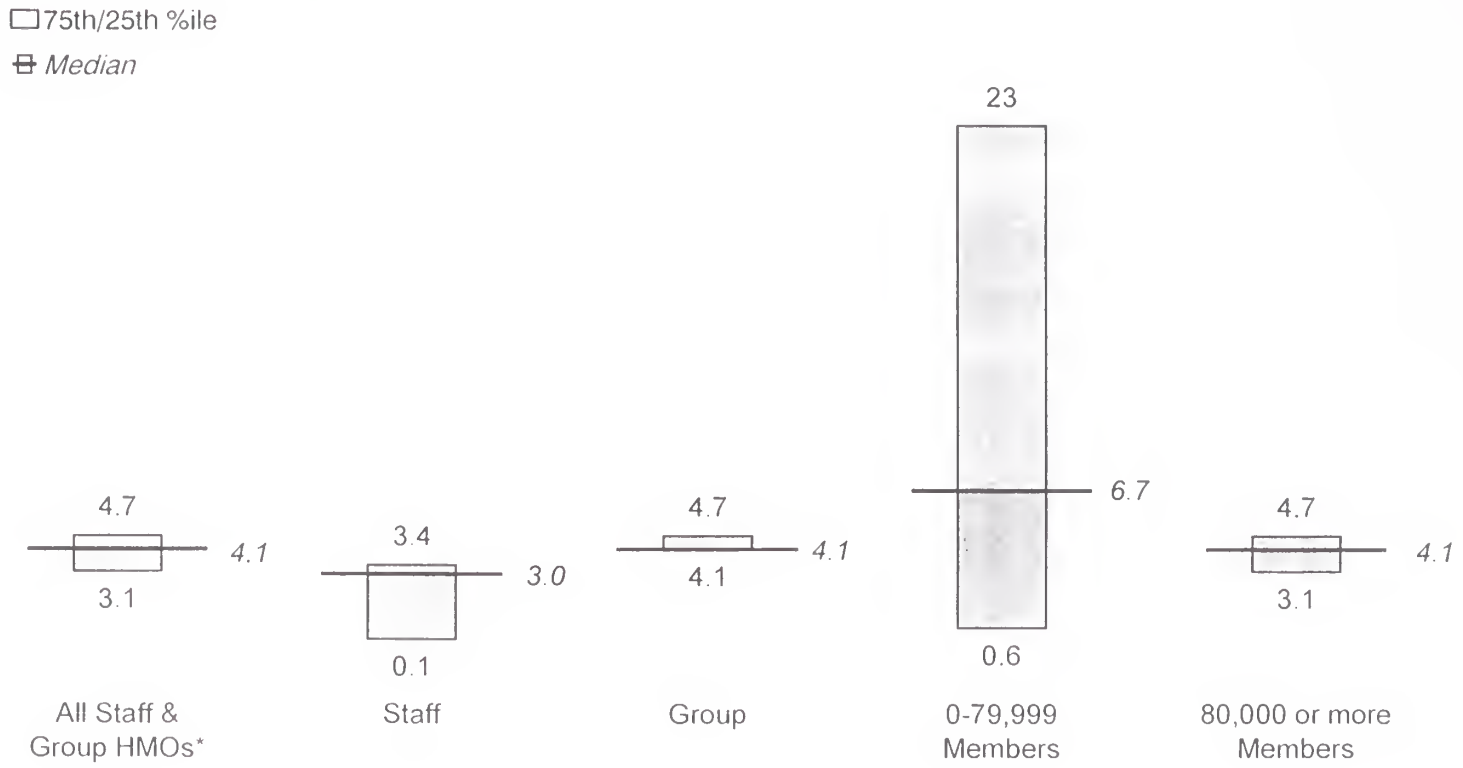
*Predominant model type.
Source: GHAA Survey of Clinical Staffing in HMOs

Figure 4.2. Full-time Equivalent Nonphysician Mental Health Providers per 100,000 HMO Members



*Predominant model type.
Source: GHAA Survey of Clinical Staffing in HMOs

Figure 4.3. Ratio of Nonphysician Mental Health Providers to Psychiatrists in HMOs



*Predominant model type.
Source: GHAA Survey of Clinical Staffing in HMOs

Discussion

Psychiatric staffing levels in staff and group model HMOs may not be a satisfactory basis for projecting the demand for psychiatrists' services by the entire population. Many unanswered questions remain about the number of physicians needed in other forms of health care networks and about future distributions of the population among HMOs and other kinds of health plans, possibly including organizational forms that have not yet been invented. Moreover, other developments in the mental health field, such as pharmacological advances, may affect psychiatrists' efficiency. Future psychiatrist-to-population ratios may approach those seen today in staff- and group-model HMOs, or they may be somewhere between these levels and those estimated by GMENAC in a FFS environment in 1980. In either case, the surplus of psychiatrists implied by these findings contrasts sharply with the shortage projected by the GMENAC report.

This prediction must be accompanied by an important qualification, however. Ratios of FTE mental health providers (physician and nonphysician) to members vary over a wide range in staff- and group-model HMOs, and both the average ratios and their variability are significantly greater in HMOs with fewer than 80,000 members than in larger HMOs. Hence the size of the health plan, as well as its type, seems to play a role in determining how many mental health professionals are needed to care for a given number of health plan enrollees.

The findings presented here are congruent with previous studies that cite the increasing number of nonphysician professionals with which HMOs contract. In this study, the average HMO had about four nonphysician psychiatric professionals for each psychiatrist. The trend toward increasing the use of nonphysician psychiatric professionals could be the most important factor to consider when projecting HMOs' future human resource requirements for psychiatric services.

Mental Health Benefits and Utilization in HMOs

Coverage for outpatient mental health services is required if an HMO is to become federally qualified, while coverage for inpatient mental health care is not. Many HMO members are subject to limits on their mental health coverage, defined as either an inpatient day limit, an outpatient visit limit, or a dollar limit beyond which the plan no longer pays. These can either be annual or lifetime limits, or both.

This section describes HMO coverage of mental health services from 1986 to 1993, and reports utilization statistics for 1989 and 1993. Data are derived from two primary sources: the 1987 through 1994 editions of GHAA's *HMO Industry Profile* (which report 1986 through 1993 data), and *Sourcebook on HMO Utilization Data*, 1991 and 1995 Editions (which report 1989 and 1992 data, respectively) (Group Health Association of America 1987 - 1994, 1991b, 1995c). All tables contain both weighted and unweighted numbers. Weighted figures reflect weighting by plan enrollment, and thus describe the characteristics or experience of a typical HMO member; unweighted numbers describe the typical HMO organization.

Mental Health Benefits

Virtually all HMOs offered coverage for outpatient mental health visits throughout the period 1986 through 1993, with coverage reaching 100% in the latter year. The percentage of HMOs offering inpatient mental health benefits stayed above 90 percent across the same years, reaching 96 percent in 1993. HMOs offering inpatient mental health benefits accounted for 93.5 percent of all HMO members.

Copayments

The percentage of HMO members subject to copayments for outpatient visits rose from just over half (53.5 percent) to almost three-quarters (72.3 percent) between 1986 and 1993. Overall, the percentage subject to copayments for inpatient mental health services increased as well, from 8.9 percent in 1986 to 16.4 percent in 1993. In best-selling benefit packages that require copayments for outpatient mental health visits, the unweighted average copayment in 1993 was about one dollar more in 1993 ($17.96) than in 1986 ($16.82). The mean copayment for mental health services using the weighted average for 1993 was $18.18 for outpatient mental health and $63.81 for inpatient mental health.

Coinsurance

The percentage of HMO members subject to coinsurance payments for outpatient mental health visits dropped from 21.6 percent in 1986 to 14.3 percent in 1993. The pattern for inpatient services is less clear; that percentage increased from 12.9 to 22.2 percent between 1986 and 1990, but subsequently dropped to 15.9 percent in 1993. In best-selling benefit packages that feature coinsurance, the average amount paid by members for outpatient visits remained approximately constant at about 40 percent of charges from 1986 to 1993, while the amount for inpatient services remained between 25 and 30 percent for most of that period. In 1993, the mean weighted coinsurance or percentage paid by members for mental health services was 43.3 and 24.9 percent for outpatient and inpatient mental health services, respectively.

Deductibles

The use of deductibles for both inpatient and outpatient mental health services remained at very low levels throughout the period 1986 to 1993. In 1993, the percentage of HMO members subject to deductibles was 2.2 percent for outpatient mental health and 2.3 percent for inpatient mental health. The mean weighted deductible paid by members for outpatient mental health services was $171.91 and for inpatient mental health services was $315.00.

Limits

About one-fifth of HMOs had annual dollar limits for outpatient mental health coverage in 1993, with a mean annual dollar limit of $1,548. Approximately 85 percent of HMOs' best-selling benefit packages had a maximum number of covered outpatient visits per year in 1993, usually the 20-visit limit specified for federally qualified plans in the HMO Act. The percentage of HMOs with outpatient visit limits appears to have dropped slightly between 1986 and 1993 from 87.3 percent to 83.3 percent, respectively. The percentage of HMOs with inpatient day limits dropped by a larger margin, from about 93.1 percent to 82.5 percent, with a weighted mean limit of 33 days. The percentage of HMO members subject to day and visit limits was 90.9 percent for outpatient mental health and 88.5 percent for inpatient mental health.

Mental Health Utilization

Overall, there were about the same number of combined inpatient mental health and substance abuse discharges per 1,000 HMO enrollees in 1992 (3.28 discharges) as in 1989 (3.27 discharges). The median inpatient days per 1,000 dropped from about 32 days to 24 days over that same time period. The median length of stay dropped by approximately 2.7 days from 10.6 days in 1989 to 7.9 days in 1992.

When the statistics are limited to substance abuse only, the median number of discharges per 1,000 enrollees increased slightly from 0.93 discharges in 1989 to 0.99 discharges in 1992. The median inpatient days per 1,000 for substance abuse services only also increased from 4.6 days to 5.6 days, while

the median length of stay declined by about 2 days from 8.2 days to 6.4 days.

The median number of outpatient visits per enrollee to psychiatrists increased slightly, from 0.05 visits in 1989 to 0.07 visits in 1992. Outpatient visits per enrollee to psychologists increased from 0.11 to 0.18 in those same years.

Discussion

Cost sharing and service or dollar limits are the chief ways of restricting service use through the design of health benefits. HMOs employ both of these strategies for mental health services. For cost sharing, they chiefly require copayments for outpatient care, with only a minority of inpatient care subject to either copayments, coinsurance, or deductibles. More than 80 percent, however, have coverage limits on both inpatient and outpatient mental health care.

For both inpatient and outpatient mental health care, day/visit limits have decreased slightly since 1986. The use of cost-sharing provisions, however, has increased. Since HMOs employing coinsurance do not also use copayments, combining the percentages for each gives a clearer picture of cost-sharing trends. Doing this shows that the use of either type of cost sharing went from 21.8 percent to 32.3 percent for inpatient mental health care, and from 75.1 percent to 86.6 percent for outpatient care, between 1986 and 1993.

A related issue is how the use of these provisions compares to those for general health care in HMO plans. Similar to mental health care, in 1993, only a few percent of HMO enrollees were subject to a deductible for general hospitalization or primary care visits. However, differences exist for copayments and coinsurance. For general hospitalization, 9.2 percent of HMO enrollees were subject to one of these forms of cost sharing, while 78.8 percent were subject to them for primary care visits. Most of these requirements were for copayments. The average copayment was $133.09 for general hospitalization and $6.23 for primary care visits. Thus, compared to mental health care, fewer enrollees are subject to cost sharing for general hospitalization but pay more when they are. For outpatient care, a smaller percentage are subject to cost sharing compared to mental health, and, when copayments are charged, they pay only about a third as much for mental health visits as for primary care visits.

For both general hospitalization and primary care visits, less than one percent of HMO enrollees have day or visit limits. By comparison, about 90 percent of enrollees have limits for both inpatient and outpatient mental health care.

Summary

In recent years, HMOs have become one of the fastest growing types of health coverage available. This article has reviewed methods of physician compensation, psychiatrists' rates of participation, staffing levels for mental health professionals, and coverage and utilization of mental health services in HMOs.

Results show wide variability in staffing levels of mental health professionals in staff and group model HMOs. On average, however, HMOs employ 6.5 FTE psychiatrists per 100,000 members and 27.6 nonphysician mental health professionals, a ratio of about one to four. Staffing levels may be related to both the type and size of the HMO, but this study did not include the specification of a model that would fully explain the observed differences. Doing so would probably require examining other variables related to the supply and demand for services, including benefit limits and the local availability of professionals. Another fruitful topic for investigation would be models for service delivery in HMOs that might affect the ratio of physician to nonphysician staff.

Utilization of mental health services also is affected by features of benefit packages related to cost sharing and service limits. Generally, while there were slight decreases in the use of service limits between 1986 and 1993, cost sharing for both inpatient and outpatient mental health services increased. In 1993, most HMO consumers of mental health services were still subject to coverage limits that did not apply to primary care or general hospitalization. Differences are less between general health and mental health care when cost sharing is considered. The proportion of enrollees subject to cost sharing for hospitalization is about three times greater than for mental health. While the proportion of those subject to cost sharing for outpatient care is similar, the amount paid for mental health service visits is nearly triple that for primary care.

The degree to which these changes have affected utilization is unclear. While inpatient discharges for behavioral health reasons remained steady from 1989 to 1992, average length of stay declined. In contrast, there was a slight increase in the rate of outpatient visits to psychiatrists and psychologists. These findings suggest that there is not a straightforward linear relationship between utilization and benefit provisions, and that other variables related to supply and demand may have important mediating effects.

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Chapter 5

The 12-Month Prevalence and Correlates of Serious Mental Illness (SMI)

Ronald C. Kessler, Ph.D.; Patricia A. Berglund, M.B.A.;
Shanyang Zhao, Ph.D.
University of Michigan
Philip J. Leaf, Ph.D.; Anthony C. Kouzis, Ph.D.
The Johns Hopkins University
Martha L. Bruce, Ph.D., M.P.H.
Yale University
Robert M. Friedman, Ph.D.
University of South Florida
René C. Grosser, Ph.D.
New York State Office of Mental Health
Cille Kennedy, Ph.D.; William E. Narrow, M.D., M.P.H.
National Institute of Mental Health
Timothy G. Kuehnel, Ph.D.
Camarillo-UCLA Research Center
Eugene M. Laska, Ph.D.
The Nathan S. Kline Institute for Psychiatric Research
Ronald W. Manderscheid, Ph.D.
Center for Mental Health Services
Robert A. Rosenheck, M.D.
West Haven, Ct. VA Medical Center
Timothy W. Santoni, M.A.
Mental Hygiene Administration, State of Maryland
Max Schneier, J.D.
Member, SAMHSA Advisory Council and Member, JCAHO

Introduction

Public Law (PL) 102-321, the ADAMHA Reorganization Act, established a Block Grant for States to fund Community Mental Health Services for adults with "serious mental illness" (SMI) and for children and adolescents with "serious emotional disturbance" (SED). The law required States to include incidence (number of new cases) and prevalence (number of total cases within a year) estimates in their applications for Block Grant funds, and required the Substance Abuse and Mental Health Services Administration (SAMHSA) to develop definitions of SMI and SED and to establish groups of technical experts to develop related estimation methodologies based on these definitions that could be used by the States. A previous report described how the technical experts developed the estimation methodology (Kessler et al. 1996). The current report presents data on the epidemiology of SMI based on the operational definition used to develop this methodology. We present data on the 12-month prevalence of SMI, patterns of service utilization for SMI, and sociodemographic correlates of both SMI and service utilization for SMI. Incidence of SMI at the State level currently cannot be estimated from available data.

Methods

Data Sources

The main data used in this report come from the National Comorbidity Survey (NCS), a nationally representative household survey carried out in 1990-91 that assessed the prevalence of DSM-III-R disorders among persons in the age range 15-54. The methods and procedures of the NCS are described by Kessler et al. (1994). In addition, some data are used from the Baltimore Epidemiologic Catchment Area (ECA) Study. The ECA was a general population survey of five local areas in the U.S. carried out in 1980-84 that assessed the prevalence of DSM-III disorders among persons ages 18 and older. The methods and procedures of the ECA are described by Eaton and Kessler (1985). Our analysis of the ECA data is limited to the Baltimore site because this was the only ECA site that included the impairment questions needed to operationalize the criteria for SMI. For two reasons, it was important to include the Baltimore ECA in the analysis even though the Baltimore ECA sample is not nationally representative. First, the Baltimore ECA provides a rough replication of, and check on, the NCS results. Second, the NCS was only administered to respondents younger than 55 years of age, so the Baltimore ECA data are needed to provide estimates for persons 55+.

Defining SMI

The definition of SMI stipulated in PL 102-321 requires the person to have at least one 12-month DSM disorder other than substance use disorders, and to have serious impairment. Disorder was operationalized in the NCS by a modified version of the Composite International Diagnostic Interview (CIDI; World Health Organization 1990), a structured diagnostic interview designed to be used by trained interviewers who are not clinicians. The disorders included in the NCS were mood disorders (major depression, dysthymia, mania), anxiety disorders (panic disorder, generalized anxiety disorder, phobia, post-traumatic stress disorder), substance use disorders (alcohol/drug abuse or dependence), antisocial personality disorder, schizophrenia, schizophreniform disorder, and other nonaffective psychoses. Disorder was operationalized in the ECA by the DSM-III version of the Diagnostic Interview Schedule (Robins, et al. 1981), also a structured diagnostic interview designed to be administered by trained interviewers who are not clinicians. The disorders included mood disorders (major depression, dysthymia, mania), anxiety disorders (panic disorder, phobia, obsessive-compulsive disorder), substance use disorders (alcohol/drug abuse or dependence), antisocial personality disorder, schizophrenia, schizophreniform disorder, somatization disorder, and organic brain syndrome. The disorders covered in the NCS and ECA are only a subset of those in DSM-III and DSM-III-R and, therefore, the prevalence estimates of SMI are probably conservative.

Four criteria were used to define serious impairment in the surveys. The first criterion was that the respondent had severe mental illness as operationalized by the National Advisory Mental Health Council of the National Institute of Mental Health (National Advisory Mental Health Council 1993). They defined severe mental illness in terms of the conjunction of diagnosis, disability, and duration. Included were schizophrenia, schizoaffective disorder, manic depressive disorder, autism, and severe forms of major depression, panic disorder, and obsessive compulsive disorder. In the current report, this definition includes the following: (i) 12-month prevalence of nonaffective psychosis or mania; (ii) Lifetime prevalence of nonaffective psychosis or mania accompanied by evidence that the respondent would have been symptomatic if it were not for treatment (defined by either use of medication or any professional treatment in the past 12 months); (iii) 12-month prevalence of either major depression or panic disorder with evidence of severity indicated either by hospitalization or use of major psychotropic medications. In order to discriminate between severe and serious mental illness in this article, severe mental illness will be referred to as "severe and persistent mental illness" (SPMI) while serious mental illness will be referred to as SMI.

Second, the respondent was classified as impaired if he or she had a 12-month DSM-III-R mental disorder and either planned or attempted suicide at some time during the past 12 months. The rationale here was that suicidality, while not directly indicating current impairment in role functioning, is such a clear sign of need for services that it warrants the inclusion of such individuals in the SMI category.

Third, the definition of SMI included respondents with a 12-month DSM-III-R mental disorder that substantially interferes with their vocational capacity. One such group was defined as those having all of the following characteristics: (i) The respondent was either unemployed or working only part-time for reasons that did not involve either some other role responsibility (such as being a student or the primary caregiver of preschool-aged children) or a physical disability that made it impossible to work; (ii) The respondent was living in poverty (using the U.S. Department of Labor definition); (iii) The background (parents' education) and training (respondent's education) of the respondent were such that the respondent would be expected to have at least twice his or her actual income. The rationale here was that the group of people having this profile performs substantially below their expected level of vocational functioning and live in financial circumstances that are below the level of minimal functioning established by the government as appropriate for State intervention. While there is no way to determine definitively that their mental disorder is the cause of this vocational impairment, we were unable to agree on a method by which this attribution of cause could be made. As a result, we decided that the best feasible approach was to rule out as many other causes as possible in the definition (i.e., child care, physical disability) and accept the conjunction of disorder and substantial impairment not due to these other causes as meeting the criteria.

A second group of respondents with a 12-month DSM-III-R mental disorder that was defined as substantially interfering with their vocational capacity was made up of those who had serious role impairment in their main productive roles defined as a pattern of consistently missing at least one full day of work per month as a direct result (as perceived by the respondent) of problems with their mental health. We recognize that most employers grant workers one full day of sick leave per month, and that a worker who persistently takes this day for mental health reasons would not, because of this alone experience substantial role interference. However, we nonetheless set the threshold to one day per month based on the fact that this made it impossible for the worker ever to miss additional work due to a physical illness. This constraint means that such a worker either would have to come to work on days he or she was physically ill, which would both impair functioning in the work role and lead to an unnecessary prolongation of the illness compared to what would happen if the worker stayed home and recuperated, or that the worker would stay home and exceed the allowed number of sick days provided by the employer. Fourth, the definition of SMI included respondents with a 12-month DSM-III-R mental disorder who had serious interpersonal impairment, as indicated by either one of the following two circumstances: (i) The respondent was totally socially isolated, as operationalized by the report that they were neither married nor in an intimate relationship, nor had any confiding relationship with anyone in their personal life (friend or relative, not including a professional helper), and had affiliative interactions (such as going out with friends, talking on the telephone, or sending and receiving letters) with either friends or relatives less than once a month; (ii) The respondent had social relationships, but reported that all of these relationships (with both family and friends) were devoid of intimacy, the ability to confide, or the sense of being cared for or supported.

Analysis Methods

The results reported below begin with SMI prevalence estimates among respondents 18-54 in both the NCS and Baltimore ECA and among respondents 55+ in the Baltimore ECA. Because of the complex sampling designs in the NCS, standard errors of prevalence estimates use the Taylor series linearization method. Standard errors are not presented for the Baltimore ECA prevalence estimates or for the pooled prevalence estimates based on combining the NCS and Baltimore ECA due to the fact that there is no formal statistical basis for this merging of results from a national survey and a local survey.

Subsequent results are based on the NCS, where we show estimates of the co-occurrence of SMI and addictive disorders, patterns of service utilization among those with SMI, and correlates of both prevalence and service use. Standard errors of the service use prevalence estimates are based on the Taylor series method. The correlates are presented in the form of odds-ratios, which were obtained by exponentiating coefficients estimated in logistic regression models. Standard errors of the logistic regression coefficients were obtained using the method of Jackknife Repeated Replication (JRR) (Kish and Frankel 1970; Koch and Lemeshow 1972) in 88 design-based balanced subsamples. Confidence intervals of the odds-ratios were derived from these design-based standard errors.

Results

The 12-Month Prevalence of SMI

As noted above, four criteria were used to define serious role impairment among persons with a 12-month mental disorder. Among NCS respondents in the age range 18-54, 3.3 percent met our operational criteria for the first of these, 12-month SPMI. Twelve-month planned or attempted suicides, the second criterion, were reported by 0.9 percent of NCS respondents who met criteria for a 12-month mental disorder. Only 0.2 percent of NCS respondents both fulfilled criteria for one of the NCS/DSM-III-R mental disorders, and met the third criterion of lacking a legitimate productive role, while 3.1 percent were classified as having serious role impairment in their main productive role. Finally, 0.6 percent of NCS respondents ages 18-54 were classified as having serious interpersonal impairment along with a 12-month mental disorder. There is significant overlap among these criteria, so the prevalence estimate for SMI, 6.2 percent, is less than the sum of these parts. The 6.2 percent is made up of 3.3 percent with SPMI and an additional 2.9 percent with SMI but not SPMI.

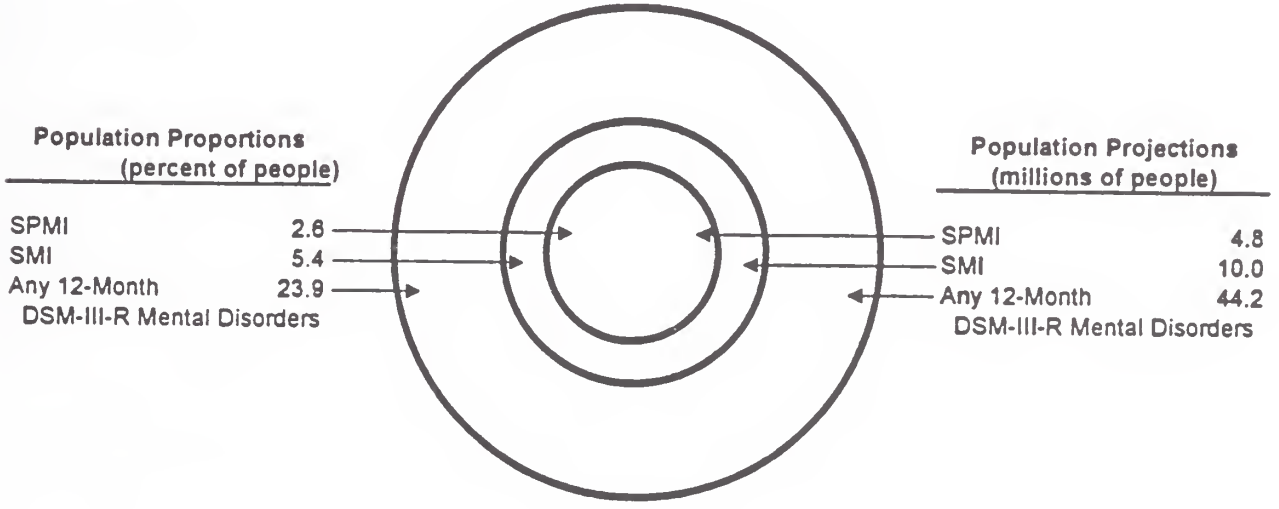
Table 5.1. Estimated 12-Month Prevalences of DSM-III-R Severe and Persistent Mental Illness (SPMI), Serious Mental Illness (SMI), and Any Mental Illness, by Age, Among NCS and Baltimore ECA Respondents

	NCS	Baltimore ECA	Combined
I. 18-54			
SPMI	3.6	3.3	3.3
SMI	7.5	6.2	6.2
Any	23.9	24.3	24.3
II. 55+			
SPMI	0.9	—	0.8
SMI	4.3	—	3.9
Any	19.7	—	22.5
III. 18+			
SPMI	2.7	—	2.6
SMI	6.4	—	5.4
Any	22.5	—	23.9

The Baltimore Epidemiologic Catchment Area Study (ECA) estimates are based on pooled analyses of two waves of data collection in order to adjust for recall bias over the 12-month recall period using a pooling method developed by Regier et al. (1993). The National Comorbidity Survey (NCS) estimates, in comparison, are based on a single wave of data collection that used special probing procedures to minimize recall bias. The Combined estimates cannot be computed directly from the ratios in Part I of the table due to the fact that a further adjustment was made for the age distribution of the total population as of 1990. The latter differs somewhat from both the NCS and ECA age distributions.

A summary of the NCS results is presented in the first column of table 5.1. Parallel results are presented in the second column for the Baltimore ECA. As shown in the table, there is a close correspondence between the estimates of SPMI, SMI, and any 12-month mental disorder for 18-54 year olds in the NCS and Baltimore ECA: 3.3 percent (NCS) versus 3.6 percent (Baltimore ECA) for SPMI, 6.2 percent (NCS) versus 7.5 percent (Baltimore ECA) for SMI; and 24.3 percent (NCS) versus 23.9 percent (Baltimore ECA) for any 12-month DSM-III-R mental disorder (not counting substance use disorders). All these estimates are lower for respondents 55 years and older in the Baltimore ECA. The prevalence estimates for people ages 55+ in the third column of table 5.1 were generated by assuming that the ratios of NCS to Baltimore ECA prevalence estimates in this age range are the same as in the age range 18-54. The inferred total population (age 18+) estimates were obtained by summation based on Census data that 71.7 percent of the 18+ population in 1990 were ages 18-54 compared to 11.4 percent 55-64 and 16.9 percent 65+ (U.S. Bureau of the Census, 1992). Note that these estimates are not equivalent to those that would be obtained from a simple ratio adjustment of the 18+ Baltimore ECA data, due to the fact that the distribution of respondents by age in the Baltimore ECA differs from the distribution in the U.S. population.

Figure 5.1. Estimated Total Population (Ages 18+) 12-Month Prevalences and Population Projections of DSM-III-R Severe and Persistent Mental Illness (SPMI), Serious Mental Illness (SMI), and Any Mental Illness Based on Pooled ECA/NCS Data



The population projection estimates based on these calculations are presented in figure 5.1. As shown there, we estimate that 4.8 million adults in the U.S. population had a severe and persistent mental illness in 1990, and that an additional 5.6 million (for a total of 10.0 million) adults had a serious mental illness. Our estimates suggest that an additional 34.2 million American adults (for a total of 44.2 million) had some other 12-month DSM-III-R mental disorder during 1990. It is important to note that the other mental disorders are limited to those described above as being included in the NCS and Baltimore ECA.

The Co-occurrence of SMI and Substance Use Disorders

Considerable interest exists in the co-occurrence of SMI and substance use disorders, due to the fact that there are separate Block Grants for the two types of disorder. The results in table 5.2 show the estimated overlap based on a pooled analysis of the NCS and Baltimore ECA data. Twelve-month substance use disorders are defined as DSM-III-R abuse or dependence on either alcohol or other drugs, excluding nicotine dependence, that were active at some time during the past year. Consistent with the requirements of DSM-III-R, a diagnosis of 12-month dependence was defined narrowly as requiring the respondent to have three or more of the nine Criterion A symptoms of substance dependence during the past 12 months, while a diagnosis of 12-month abuse requires having one or both of the two Criterion A symptoms of substance abuse during the past 12 months, and never having met criteria for dependence. Respondents who meet criteria for abuse, but have a history of dependence, are not included in these estimates due to the diagnostic hierarchy rules in DSM-III-R.

Table 5.2. Estimated Co-occurrence of 12-Month DSM-III-R Mental Disorders and Substance Use Disorders Among Combined Baltimore ECA and NCS Respondents Ages 18+

	Substance Use Disorders						
	% Yes			% No			
Mental Disorders	R[1]	C[1]	T[1]	R[1]	C[1]	T[1]	Total
SPMI	27.0	10.7	0.7	73.0	2.0	1.9	2.6
SMI	14.7	17.2	1.1	85.3	4.6	4.3	5.4
Any	9.1	43.3	2.8	90.9	22.5	21.1	23.9
None	4.8	56.7	3.7	95.2	77.5	72.5	76.1
Total	6.4	100.0	6.4	93.6	100.0	93.6	100.0

[1]R = row percentages; C = column percentages; T = total population percentages.
The estimates were generated using the same method as in Table 1, where an assumption was made that the Baltimore ECA/NCS prevalence ratios, which are observed only for respondents in the age range 18-54, are the same at older ages as well. As in Table 1, the Baltimore ECA estimates were made using the pooling method developed by Regier et al. (1993) to combine two waves of data, while the NCS estimates were based on a single wave of data collection.

As shown in table 5.2, 27.0 percent of the people with SPMI and 14.7 percent of those with SMI are estimated to have an additional 12-month DSM-III-R diagnosis of narrowly defined substance use disorder. We also see that 10.7 percent of persons with a narrowly defined 12-month substance use disorder are estimated also to have SMI, while 43.3 percent of persons with a narrowly defined 12-month substance use disorder are estimated to carry a 12-month DSM-III-R mental disorder diagnosis, whether or not criteria for SMI were met.

Use of Services Among People with SMI

The results in table 5.3 show reported rates of professional service use for psychiatric problems in the 12 months prior to the interview among NCS respondents with SMI. The most commonly used treatment sector was the mental health specialty (MHS) sector, which was used by 29.0 percent of those with SMI. The average number of visits in this sector among those with SMI was 16.8. The general medical (GM) sector was used by 21.4 percent of respondents with SMI, with a much lower average number of visits of 4.0. Smaller proportions of those with SMI used the human services (HS) and self-help (SH) sectors (14.2 percent and 15.1 percent, respectively), with average number of visits of 8.2 and 23.8, respectively. In all, 46.6 percent of NCS respondents with SMI were seen in at least one of these service sectors, with an average of 22.5 visits overall.

A comparison of treatment patterns for psychiatric problems among persons with SMI versus other NCS respondents is presented in table 5.4. As shown there, the proportion of persons with SMI who used services for a psychiatric problem (46.6 percent) is significantly higher than among those with other 12-month NCS/DSM-III-R disorders (18.5 percent), past lifetime disorders (10.4 percent), and no lifetime disorders (6.7 percent). Furthermore, among people in treatment, those with SMI made a significantly larger average number of visits (22.5) than those in other subsamples (18.2-7.3). Nonetheless, due to the fact that these other subgroups make up the bulk of the population, persons with SMI account for only 23.5 percent of all people in treatment for emotional problems, and 32.7 percent of all visits for emotional problems.

Sociodemographic Correlates of SMI

The results in the first column of table 5.5 show the bivariate sociodemographic correlates of SMI in the NCS. Women have significantly higher relative odds of SMI than men. A trend exists for SMI to be more prevalent among people in the age range 15-25, compared to those 25-54. SMI is also significantly and negatively related to both family income and education. Married respondents have significantly lower prevalence of SMI than either the never married or previously married. There are no significant relationships of SMI, however, with race, urbanicity, or region of the country. The results of multivariate analysis, reported in the next column, show that the sex, education, and marital status effects hold up after adjustment for overlap among the significant correlates.

The results in the second part of table 5.5 show the bivariate associations between the same sociodemographic factors and use of services among people with SMI. As shown there, service use among persons with SMI is significantly related to age, race, and income, with the lowest rates of use found among people ages 18-34, non-whites, and those with family incomes of less than $70,000. There are no significant relationships of use with sex, education, marital status, urbanicity, or region of the country among people with SMI.

Table 5.3. Prevalence of 12-month Service Use for Psychiatric Problems and Average (Mean) Number of Vists in Separate Service Sectors Among NCS Respondents Ages 18-54 with 12-Month SMI

A. Prevalence of 12-Month Service Use for Psychiatric Problems Among Persons with SMI

Health Care Sector						Other Sectors				Any Services	
MHS[1]		GM[1]		Any[1]		HS[1]		SH[1]		ANY[1]	
p	(se)	p	(se)	p	(se)	p	(se)	p	(se)	p	(se)
29.0	(3.4)	21.4	(3.0)	39.5	(3.9)	14.2	(2.0)	15.1	(2.3)	46.6	(4.0)

B. Average (Mean) Number of Visits[2] in Sector Among Persons with SMI

Health Care Sector						Other Sectors				Any Services	
MHS[1]		GM[1]		Any[1]		HS[1]		SH[1]		ANY[1]	
$\bar{x}$	(se)	$\bar{x}$	(se)	$\bar{x}$	(se)	$\bar{x}$	(se)	$\bar{x}$	(se)	$\bar{x}$	(se)
16.8	(2.2)	4.0	(0.7)	14.5	(1.9)	8.2	(1.4)	23.8	(3.9)	22.5	(2.2)

[1]MHS = mental health specialty sector; GM = general medical sector; Any health care = either MHS or GM; HS = human services sector; SH = self-help sector; ANY = any 12-month use of services.

[2]The averages are based on the subsample of respondents who visited the sector, not the total sample.

Table 5.4. Prevalence of 12-Month Service Use for Psychiatric Problems, and Average (Mean) Number of Visits Among NCS Respondents with SMI (Ages 18-54) and Other NCS/DSM-III-R Disorders

Subsample	Distribution of Disorders		Prevalence[1] of Use		Distribution of Service Use		Average (Mean)[2] Number of Visits Among Users		Average (Mean) Number of Visits Per Capita		Distribution of Visits	
	%	(se)	p	(se)	%	(se)	$\bar{x}$	(se)	$\bar{x}$	(se)	%	(se)
	1	2	3	4	5	6	7	8	9	10	11	12
SMI	6.5	(0.5)	46.6	(4.0)	23.5	(2.1)	22.5	(2.2)	10.5	(1.4)	32.7	(4.2)
Other 12-Month Disorders	24.3	(0.8)	18.5	(1.5)	35.1	(2.7)	18.2	(2.2)	3.4	(0.4)	39.3	(3.7)
Past Lifetime Disorder	19.5	(0.9)	10.4	(1.0)	15.7	(1.9)	16.9	(2.3)	1.8	(0.3)	16.4	(2.7)
No Lifetime Disorder	49.7	(1.3)	6.7	(1.2)	25.8	(4.0)	7.3	(1.2)	0.5	(0.9)	11.6	(2.0)
Total	100.0	(---)	12.9	(0.7)	100.0	(---)	16.2	(1.4)	2.1	(0.2)	100.0	(---)

[1]There is a statistically significant difference in the prevalence of service use between each of the logically possible six pairs of subsamples

[2]There is a statistically signigicant difference in the average number of visits between five of the six logically possible pairs of subsamples, the exception being between those with other 12-month disorders and past lifetime disorders.

Table 5.5. Sociodemographic Correlates of 12-Month SMI and Use of Services Among NCS Respondents with SMI (Ages 18-54)

	SMI				Use of Services Among People with SMI			
	Bivariate		Multivariate		Bivariate		Multivariate	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Sex								
Male	1.00	(——)	1.00	(——)	1.00	(——)		
Female	1.56 *	(1.15-2.12)	1.58 *	(1.19-2.08)	0.72	(0.42-1.24)		
Age								
18-24	1.66	(0.95-2.89)	1.79	(0.88-3.65)	0.36 *	(0.15-0.88)	0.33 *	(0.15-0.76)
25-34	1.12	(0.64-1.97)	1.30	(0.73-2.32)	0.36 *	(0.15-0.90)	0.31 *	(0.13-0.78)
35-44	1.19	(0.67-2.12)	1.55	(0.90-2.67)	0.87	(0.36-2.19)	0.67	(0.28-1.59)
45-54	1.00	(——)	1.00	(——)	1.00	(——)	1.00	(——)
Race								
White	1.00	(——)			1.00	(——)	1.00	(——)
Black	1.03	(0.61-1.73)			0.54	(0.23-1.27)	0.69	(0.29-1.65)
Hispanic	1.20	(0.68-2.14)			0.40 *	(0.18-0.88)	0.55	(0.26-1.17)
Other	0.94	(0.43-2.04)			0.58	(0.13-2.49)	0.90	(0.19-4.27)
Income								
Less than $20,000	1.97 *	(1.04-3.73)	0.93	(0.46-1.90)	0.43 [1]*	(0.23-0.78)	0.48 [1]*	(0.27-0.84)
$20,000-34,999	1.31	(0.70-2.44)	0.88	(0.48-1.60)	0.43 [1]*	(0.23-0.78)	0.48 [1]*	(0.27-0.84)
$35,000-69,999	1.07	(0.57-2.04)	0.88	(0.46-1.68)	0.43 [1]*	(0.23-0.78)	0.48 [1]*	(0.27-0.84)
$70,000 or more	1.00	(——)	1.00	(——)	1.00	(——)	1.00	(——)
Education (years)								
0-11	3.64 *	(2.14-6.18)	3.33 *	(1.93-5.73)	0.50 [2]	(0.21-1.16)		
12	2.32 *	(1.46-3.69)	2.11 *	(1.40-3.19)	0.50 [2]	(0.21-1.16)		
13-15	2.00 *	(1.21-3.30)	1.78 *	(1.13-2.81)	0.50 [2]	(0.21-1.16)		
16+	1.00	(——)	1.00	(——)	1.00	(——)		
Marital Status								
Married	1.00	(——)	1.00	(——)	1.00	(——)		
Previously Married	3.51 *	(2.35-5.25)	3.36 *	(2.14-5.27)	0.72	(0.40-1.30)		
Never Married	1.56 *	(1.13-2.14)	1.36	(0.89-2.07)	0.57	(0.31-1.04)		
Urbanicity								
Major Metropolitan	1.24	(0.74-2.06)			0.86	(0.46-1.61)		
Other Urban	1.26	(0.72-2.19)			1.08	(0.45-2.58)		
Rural	1.00	(——)			1.00	(——)		
Region								
Midwest	0.87	(0.55-1.38)			0.93	(0.31-2.77)		
Northeast	0.93	(0.57-1.49)			0.49	(0.21-1.10)		
West	1.00	(0.62-1.62)			1.14	(0.56-2.31)		
South	1.00	(——)			1.00	(——)		

*Significant at the .05 level, two-tailed test

[1]The first three categories were collapsed based on their bivariate ORs being very similar (0.57, 0.40, and 0.46).

[2]The first three categories were collapsed based on their bivariate ORs being very similar (0.49, 0.44, 0.64).

Discussion

Limitations

It is important to note that the ECA and NCS were both designed with the main purpose of studying lifetime, rather than 12-month, prevalence. As a result, most of the emphasis in diagnostic assessment was on lifetime disorders. For example, the assessment of major depression, one of the most common disorders associated with SMI, was carried out by asking a great many questions about the worst lifetime episode reported by each respondent, in order to make sure this episode fulfilled all the criteria in DSM-III or DSM-III-R for a major depressive episode. Only a single question, in comparison, was asked to determine whether the respondent had such an episode during the past 12 months: "When was the last time you had (a depressive episode)?" No probing was carried out to make sure that this 12-month episode was severe enough to meet DSM criteria. Nor was any information obtained about the duration of this most recent episode. These limitations are likely to lead to an overestimation of 12-month prevalence. On the other hand, neither the NCS or ECA comprehensively assessed all DSM disorders. This limitation is likely to lead to an underestimation of SMI.

In addition, neither the ECA or NCS focused on the assessment of functional impairment, an issue of considerable importance in DSM-IV and at the heart of the definition of SMI. Only a single question about lifetime impairment was asked consistently about the disorders in the ECA and NCS and this concerned whether the disorder ever (in the lifetime) interfered a lot with the respondent's life and activities. No more concrete data were obtained on lifetime functional impairment. The only data obtained about 12-month impairment were those concerning work loss and work cutback due to psychiatric problems. These limitations are likely to lead to imprecision in the estimation of impairment and, because of this, SMI.

Overview

With these limitations in mind, the 12-month prevalence of SMI in the U.S. household population ages 18+ is estimated to be 5.4 percent, or 10.0 million people. SMI is more common among women than men and is elevated among the unmarried, among persons with less than $20,000 family income, and among those with less than a college education. Close to half of people with SMI report receiving some type of treatment during the past year, although only 29 percent are seen by a mental health specialist. Lack of treatment of SMI is especially high among persons in the age range 18-34, nonwhites, and those with less than $70,000 family income.

Because of the limitations mentioned above, it is important for future work to generate measures of functional impairment that are developed and validated with the same care as the currently available measures of psychiatric diagnoses. Future investigations should also be carried out in nationally representative samples that cover the full range of the adult years, so that SMI can be assessed more accurately. In the ideal case, these impairment measures should be based on brief structured inventories that are in a form that can be adapted both to self-administration and interviewer-administration. They should be suitable for use by States in direct client assessment. They should also be suitable for use in future national surveys, which are needed to establish more precise estimates of SMI.

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Chapter 6

Prevalence of Serious Emotional Disturbance in Children and Adolescents

Robert M. Friedman, Ph.D.
Florida Mental Health Institute

Judith W. Katz-Leavy, M.Ed.; Ronald W. Manderscheid, Ph.D.;
and Diane L. Sondheimer, M.S., M.P.H.
Center for Mental Health Services

Introduction

Public Law 102-321, the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act, was enacted into Federal law on July 10, 1992. Title II of this law establishes a block grant for community mental health services, to be administered by the newly established Center for Mental Health Services (CMHS) of the Substance Abuse and Mental Health Services Administration (SAMHSA). The block grant allows for allocations of funds for the provision of community mental health services to children with a "serious emotional disturbance," and to adults with a "serious mental illness."

The law also requires that CMHS establish definitions for the terms "children with a serious emotional disturbance," and "adults with a serious mental illness," and methods for making estimates of the overall incidence (number of new cases within a year) and prevalence (total number of cases within a year) in these two populations. These estimates are then to be used by States as part of their application for funds under the block grant program.

On May 20, 1993, CMHS published definitions for each of these terms in the Federal Register (p. 29422-29425). These definitions were developed after a review and analysis of comments received in response to two earlier notices published in the Federal Register (August 21, 1992, p. 37979, and November 6, 1992, p. 53118). CMHS also indicated that estimation methodologies "will be developed by two separate groups of technical experts who will operationalize the key concepts in each definition on the basis of available data sets" (p. 29425).

The purpose of this report is to present the findings of the group of technical experts who met to consider estimation methodologies for establishing prevalence of children with serious emotional disturbance. The group was unable to develop a method for estimating incidence because of the absence of adequate studies that permit incidence rates of serious emotional disturbance to be determined. A separate report has been prepared by a second group of technical experts for adults with serious mental illness (Kessler et al. 1995).

This report begins with a presentation of the definition developed by CMHS. This is followed by a discussion of how this definition was operationalized, the general approach that was used to develop the estimation methodology, the specific data bases that were used for this purpose, and the findings from the use of these data bases. Based on these findings, the report concludes with a recommendation for an estimation methodology, a discussion of important gaps in the knowledge base, and recommendations for addressing these gaps.

Definition

The CMHS definition is that "children with serious emotional disturbance" are persons:

-- from birth up to age 18;
-- who currently or at any time during the past year
-- have had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria specified within DSM-III-R; and
-- that resulted in functional impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities (p.29425).

The definition goes on to indicate that, "these disorders include any mental disorder (including those of biological etiology) listed in DSM-III-R or their ICD-9-CM equivalent (and subsequent revisions) with the exception of DSM-III-R 'V' codes, substance use, and developmental disorders, which are excluded, unless they co-occur with another diagnosable serious emotional disturbance" (p. 29425).

Further, the definition indicates that "functional impairment is defined as difficulties that substantially interfere with or limit a child or adolescent from achieving or maintaining one or more developmentally-appropriate social, behavioral, cognitive, communicative, or adaptive skills. Functional impairments of episodic, recurrent, and continuous duration are included, unless they are temporary and expected responses to stressful events in their environment. Children who would have met functional impairment criteria during the referenced year without the benefit of treatment or other support services are included in this definition" (p. 29425).

Operationalizing the Definition

General Approach

The group recognized at its first meeting, and reiterated at subsequent meetings, that while the identification of a specific prevalence estimate, or even a prevalence range, has value for policy-makers, it also involves the risk of over-simplifying a complex situation. The group emphasized that prevalence rates for specific diagnoses, and for serious emotional disturbance, overall, may vary greatly for children of different ages, genders, racial and ethnic groups, socio-economic groups, and for residents of different types of communities. Further, the data to understand these differences may not be available.

The group expressed a strong belief that the children's mental health field, and ultimately children in the United States, will be better served by careful research, using culturally competent measures and methods, to better understand differences and commonalities, rather than by general conclusions that obscure existing differences. Given this strong belief, this report will reflect differences to the extent that data are available, and indicate where adequate data to determine differences are currently unavailable and needed.

Diagnosis

The first decision that was made was to focus on community epidemiological studies done in the United States that used either the DSM-III-R, or its predecessor, the DSM-III, and that provided information on the prevalence of mental disorders using a structured interview procedure. The group decided that given the relatively small number of community epidemiological studies that had been conducted in the United States, it would be a mistake to exclude those few studies that had used the DSM-III, given its considerable similarity to the DSM-III-R.

The most frequently used structured interview procedure was the Diagnostic Interview Schedule for Children (DISC), originally developed by A. Costello and his colleagues (1984), which includes both child

and parent versions. Other interview procedures include the Diagnostic Interview for Children and Adolescents (DICA, Herjanic and Reich 1982), the Child and Adolescent Psychiatric Assessment (CAPA, Angold and E. Costello 1995), and the Composite International Diagnostic Interview (CIDI, Kessler et al. 1994).

It should be noted that while the Federal Register (May 20, 1993) speaks of a twelve-month prevalence rate, the DISC yields prevalence rates for a six-month time period, and the CAPA yields rates for a three-month time period. Although there is little reason to expect, based on empirical studies (Reinherz et al. 1993), that the twelve-month rate for serious emotional disturbance would differ markedly from the six-month rate, since serious emotional disturbances typically last longer than six months, it is important to recognize that the prevalence rates obtained from the existing community studies are for a shorter time period than called for in the Federal Register.

The group elected to consider that a child met the criteria of a diagnosable disorder either if a diagnosis was obtained from his/her own report on the structured interview, or from the parent's report on the structured interview, or from the combination of the youth's report and the parent's report, even if neither one met the criteria separately. While there are other approaches to combining data from two or more sources that were considered and have been used (Cohen, Velez, and Kohn 1987; Reich and Earls 1987), the group chose to use this "either/or" approach because it was believed that discrepant responses can be a source of valuable information. This is a different approach than was used in the studies that formed the basis for the adult estimates (Kessler et al. 1995) where information was gathered from the respondent.

Functional Impairment

The greater challenge for the group was operationalizing the concept of "functional impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities" (Federal Register 1993, p. 29425). Part of the difficulty was in identifying appropriate measures, and understanding the inter-relationship between the different measures, but the greatest difficulty was in determining the appropriate threshold or cut-off point on a scale for concluding that there was functional impairment that was "substantially" interfering with functioning.

The group at first decided on a single cut-off point to meet the CMHS definition, and to serve as a basis for prevalence estimates for serious emotional disturbance. It was then decided that in the absence of any "gold standard" that could be used as a basis for establishing such a cut-off point, and in the absence of any social validation process that has established a consensus on what the threshold should be, data would be presented for cut-off points at two levels of functional impairment. This has the benefit of providing additional information to planners and policy-makers to use, and to stimulate further discussion and research to try to better establish an appropriate threshold. The higher prevalence rate to be reported, which uses the more inclusive or less conservative cut-off point, still meets the definition of "seriously emotionally disturbed." The less inclusive and more conservative estimate can be used for more targeted efforts to plan on behalf of a more limited number of children whose level of functional impairment is especially severe.

A variety of measures of impairment were used in the community studies, and their psychometric properties were reviewed for the group by Hodges (1994). The most frequently used measure is a global measure, the Children's Global Assessment Scale (Bird et al. 1987; Shaffer et al. 1983), on which a youngster receives a rating ranging from 0 to 100 with lower scores indicating greater impairment. Scores are given in ten point intervals, and for each score there is a narrative description of the meaning of the score. Appendix B (p. 222) provides these narratives.

The group considered several potential cut-off points on the CGAS, and decided to use a score of 60 or lower as the cut-off point for the less conservative definition of serious emotional disturbance. The

narrative description for 60 is:

Variable functioning with sporadic difficulties or symptoms in several but not all social areas. Disturbance would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in settings where functioning is appropriate.

This decision was made partly on the basis of the work by Bird and his colleagues that indicates that "Empirical work has demonstrated that the optimal cut-off score on the CGAS that demonstrates definite impairment is a score lower than 61" (Bird et al. 1993, p. 103).

The score of 50 will be used as the more stringent cut-off point to denote the more severe impairment. The narrative description for 50 is:

Moderate degree of interference in functioning in most social areas or severe impairment of functioning in one area, such as might result from, for example, suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, frequent episodes of aggressive or other anti-social behavior with some preservation of meaningful social relationships.

An illustration of the impact on prevalence rates of using different cut-off points on the CGAS can be seen in the four site Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) study. The prevalence of a DSM-III-R diagnosis (using the DISC, version 2.1) in 9 to 17 year-olds and a CGAS of 70 or lower was 24.7 percent , the prevalence with a CGAS of 60 or lower was 12.8 percent, and the prevalence with a CGAS of 50 or lower was 6.2 percent (Shaffer et al., in press).

In the study by Bird and his colleagues in Puerto Rico (Bird et al. 1987), using the DISC, Version 1.3, 17.9 percent of the sample obtained a DSM-III diagnosis and a CGAS score of 60 or lower, thereby meeting the more inclusive criteria for serious emotional disturbance; however, if the cut-off point of 70 or lower was used, the prevalence rate would almost double to 33.9 percent. These widely discrepant prevalence estimates with different threshold points increased the belief by the technical group and its advisors that data should be presented based on more than one cut-off point.

Hodges (1994) concluded in her review of the CGAS that it "appears to have satisfactory reliability and validity when used by professionals" (p. 18). Both in the MECA study and the Great Smoky Mountains Study (to be described later), the CGAS rating was made by lay interviewers rather than by professionals.

Other measures of impairment were less global than the CGAS. In the MECA study, a measure of impairment was included that was connected to responses on the DISC. As answers were given during the DISC that met criteria for a diagnosis, questions were asked about whether the problems interfered with functioning. For example, if symptoms associated with a separation anxiety disorder were reported by the parent on the DISC (or the child on the children's version of the DISC), the parent would be asked if, in the past six months, this has caused problems at home, or made it hard to do things with friends, or caused problems at school or work. Similar questions would be asked about the impact of the symptoms when symptoms were reported that are associated with other disorders. This "internal impairment" measure was used in the MECA study, and also by Jensen et al. (1995). A similar measure of internal impairment is incorporated in the CAPA, which was used by Costello and her colleagues in the Great Smoky Mountains Study (E. Costello et al. in press). At present there is no broadly accepted cut-off point for determining when impairment, as measured by internal measures either on the DISC or the CAPA, constitutes "substantial" impairment, and therefore meets the requirement for "serious emotional disturbance," and therefore again data will be presented at two levels of impairment.

The Child and Adolescent Functional Assessment Scale (CAFAS) was developed by Hodges (1990) to provide a multi-dimensional scale of functioning. This scale was used in the Great Smoky Mountains

Study, and includes the dimensions of: Role Performance, Thinking, Behavior Towards Others/Self, Moods/Emotions, and Substance Use. It also includes two scales that assess caregiver resources. The Role Performance scale is probably the most relevant to the CMHS definition of functional impairment. Individuals receive scores indicating whether there is a "severe disruption or incapacitation" (e.g., unable to maintain job, school, or family role because of impairment), "major/persistent disruption" (e.g., persistent problems at school/work), "significant problem or distress" (e.g., frequent problems at school/work due to lateness/absences/poor performances/failure to hand in work), or "no disruption of functioning."

Other measures of functional impairment that have been used in community epidemiological studies include the Social Competence scale of the Child Behavior Checklist (Achenbach and Edelbrock 1983), the Columbia Impairment Scale, used in the MECA study (Bird et al. 1993), and a general rating of level of impairment used by Kashani (Kashani et al. 1987).

The National Comorbidity Survey (Kessler et al. 1994) gathered data for a sample of 15 to 54 year-olds, using yet another measure of impairment. Serious impairment was considered to be present if, in addition to having a DSM III-R diagnosis of a mental disorder, any of the following five criteria were met:

1. The respondent had one of the disorders defined as a severe and persistent mental illness by the National Advisory Mental Health Council (1993);
2. The respondent had either planned or attempted suicide during the past 12 months;
3. The respondent lacked a "legitimate productive role." This included being unemployed or working only part-time for reasons that did not involve some other role responsibility or a physical disability that made it impossible to work, living in poverty, or if the background and training of the respondent were such that the respondent would be expected to have at least twice his or her actual income;
4. The respondent had serious role impairment in his/her main productive role, as defined by consistently missing at least one full day of work per month as a result of mental health problems (as perceived by the respondent);
5. The respondent had serious interpersonal impairment.

This study served as the major data base for the development of the prevalence estimates for adults with serious mental illness (Kessler et al. 1995). Although this study does include 15 to 17 year-olds, it not only used a criteria of impairment that may be less appropriate for adolescents than adults, but also used a different diagnostic instrument than the other studies that focused exclusively on children and/or adolescents (a revised version of the Composite International Diagnostic Interview, the CIDI), and gathered data only from one source. The CIDI also did not measure many childhood onset disorders, such as conduct disorder, oppositional defiant disorder, and attention deficit disorder with hyperactivity. Therefore, it is of limited value for the present purpose.

In concluding her review of measures of impairment, Hodges (1994) indicates that, "A number of issues relevant to defining and assessing impairment in children and adolescents remain. There is no consensus on the domains to be assessed nor the relationship between specific domains and development level. The lack of measures applicable to preschool children is obvious...Sensitivity to diverse cultural subgroups also needs to be examined" (p. 29). Similarly, in another paper prepared for this group, Costello and Tweed (1994) indicate that, "Whereas the definition and assessment of psychopathology in community studies have become fairly well standardized over the past ten years, there is little consensus on how functional impairment should be defined or measured" (p. 8).

Given the problem that this circumstance creates for operationalizing the CMHS concept of functional impairment, the next section of this report cautiously reviews the findings from the existing data bases.

Table 6.1. Summary of Findings from Relevant Studies

Study	Measure & DSM System	Sample Size & Age	Prevalence of Any DSM Diagnosis	Location	Measure of Impairment	Prevalence Rate of Serious Emotional Disturbance
Kashani et al 1987	DICA/DSMIII	N=150 14-16 yr. olds	41.3%	Columbia, MO (School)	Rating of 3 or 4 by Clinicians on 4 Point Scale of Need for Tx & Impairment	18.7%
Costello et al 1988 1994 (follow-up)	DISC 1.3 DSMIII DISC 2.3 DSMIIIR	Screened = 789 Interviewed = 278 7-11 yr. olds Screened = 789 Interviewed = 263 12-18 yr. olds	22% 31%	Pittsburgh, PA HMO	CGAS 60 or less CGAS 60 or less	9.1% 10.8%
Bird et al 1988	DISC 1.3*/DSMIII	n=777 first stage n=386 second stage 4-16 yr. olds	49%	Puerto Rico-Community Survey	CGAS 60 or less	17.9%
Kessler et al 1994	CIDI/DSMIII-R (adult diagnoses)	n=600 (about) 15-17 yr. olds (Part of study of 15-54 yr. olds)	NA	National Community Survey	Aggregation of 5 Measures (see text)	8.7%
Jensen et al 1995	DISC2.1/ DSMIIIR	n=295 6-17	40%	Military dependents - from post in DC area	In tx or in need of tx Internal Impairment (1 or more) Internal Impairment (2 Domains or more)	15.8% 26.3% 18.6%
MECA (Lahey et al, in Press Shaffer et al, in Press)	DISC2.1/ DSMIII-R	n=1265 9-17 yr. olds	49%	4 Sites - Community Survey Westchester Cty., NY Atlanta, GA Puerto Rico New Haven, CT	CGAS 60 or Less Internal Impairment (One or more) CGAS 50 or less Internal Impairment (3 or more) (5 or more)	12.8% 32.8% 6.2 20-23% 10-12%
Costello et al 1995	CAPA/DSMIII-R	2 stage n=4500 9, 11, & 13 yr. olds	19.7%	Great Smoky Mountains Region of NC-Community Survey	Internal Impairment (1 or more) (2 or more) (3 or more) CGAS (60 or less) CAFAS (20 or higher) CAFAS (30 or higher)	 9.2% 7.3% 5.2% 1.8% 6.2% 4.5%

Findings from Existing Data Bases

There are no national epidemiological studies of mental disorders for children and/or adolescents that have been conducted in the United States. This deficit makes it difficult to derive prevalence rates that are generalizable to the entire United States. In the absence of national studies, the group chose to examine the results from the following smaller, and more localized studies (see table 6.1 for a summary of these studies).

One of the earlier and smaller studies was done by Kashani and his colleagues (Kashani et al. 1987) who studied a sample of 150 14 to 16 year-olds attending public school in Columbia, Missouri. There were only eight minority students in the sample. As a structured psychiatric interview, Kashani used the child and parent version of the DICA (Herjanic and Reich 1982). To assess impairment, a four point scale was developed, ranging from healthy and no treatment needed (a score of 1), to severely impaired with a serious need for treatment (a score of 4). While 41.3 percent of the overall sample were found to have at least one DSM-III diagnosis, 18.7 percent not only had a diagnosis, but were also judged by at least two independent clinicians to be moderately or severely impaired (a score of 3 or 4). Based on a small sample in Missouri, this 18.7 percent figure serves as one estimate of prevalence of serious emotional disturbance. Kashani does not present any additional data to permit establishing a second prevalence rate based on a more conservative measure of impairment (e.g., a score of 4 on his scale).

E. Costello and her colleagues (1988) conducted a study at two primary care pediatric clinics in Pittsburgh in the mid-1980s. They used a multimethod, multistage approach in which the CBCL was used as the initial screening instrument, and the DISC, both parent and child version, was used to assess the presence of diagnosable mental disorders. The CGAS was used as a measure of impairment. In a sample of children 7 to 11 years of age, they found that 22 percent had a diagnosable disorder on the DISC, 13.3 percent had a CGAS score of 60 or lower, and 9.1 percent met the dual requirements of a diagnosis and a CGAS score of 60 or lower. This group that met the dual criteria can reasonably be considered to meet the CMHS definition of serious emotional disturbance at the less conservative level. Data are not available to permit an estimate at the more conservative CGAS level of 50 or lower.

This same group of youngsters was studied again when they were between 12 and 18 years of age (Costello and Tweed 1994). Now, 31 percent were found to have a diagnosis, and 10.8 percent were found to have a diagnosable disorder and a CGAS of 60 or lower. There were 278 youngsters in the second stage of the sample in the first wave, and 263 youngsters in the second wave. The initial wave of data collection used the DISC 1.3 version and the DSM-III system, while the second wave used the DISC 2.1 version and the DSM-III-R system.

Bird and his colleagues (1988) also used a multimethod, multistage design in a community study of 4 to 16 year-olds in Puerto Rico. Again the CBCL was the screening instrument, and in the second stage, the youngsters were evaluated clinically by one of four child psychiatrists, using the child and parent version of the DISC. However, Bird et al. report that the DISC "could not be administered to some of the younger children, who either seemed not to grasp fully the questions, or seemed to be answering at random" (p. 1122). Further, because the diagnostic algorithms for the DISC were still undergoing revisions, the DISC was used "to provide a uniform and consistent interview format" (p. 1122) rather than to quantitatively determine diagnoses. Diagnoses were determined by the clinicians based on all the data available to them, and, similarly, the psychiatrists assigned a CGAS score to each youngster. Data were gathered between September, 1985, and June, 1986, using the DSM-III system.

The six-month prevalence rate of DSM-III diagnoses was 49.5 percent, the percent of youngsters with a CGAS of 60 or lower was 18.4 percent, and the combined prevalence of a diagnosis and CGAS of 60 or lower was 17.9 percent. While the sample size for the first stage of this study was 777, and for the

second stage was 386, the number of children at each age was not sufficient to permit separate prevalence rates of serious emotional disturbance to be determined for different age groups. While data were presented for CGAS scores of 70 or below, no data were presented at the level of 50 or below.

In an effort to improve the methodology for community epidemiological studies, the National Institute of Mental Health (NIMH) supported a four-site study called MECA (Lahey et al. in press). The four sites were in Westchester County, New York; the New Haven, Connecticut area; Atlanta, Georgia; and Puerto Rico.

MECA used the DISC 2.3 version, and the DSM-III-R. As measures of impairment, the CGAS, the Columbia Impairment Scale, and a measure of impairment internal to the DISC were all used. The sample consisted of 1,285 youngsters between 9 and 17 years of age paired with an adult caretaker.

The prevalence rate of a diagnosis, plus a CGAS of 60 or lower for all four sites combined was 12.82 percent, and the prevalence rate for a diagnosis, plus a CGAS of 50 or lower was 6.2 percent. Prevalence rates using the Columbia Impairment Scale were similar to those using the CGAS, but slightly higher (Shaffer, personal communication, July 1994). The prevalence rate for a DSM diagnosis plus any indication of impairment on the internal measure of impairment (a score of at least one) was 32.8 percent. With a score of at least three on the internal measure of impairment, the prevalence rate was in the 20 to 23 percent range, and with a score of at least five, the prevalence rate was in the 10 to 12 percent range (Shaffer, personal communication, August 1994).

When a score of at least one on the internal measure of impairment is combined with a CGAS of 60 or lower, and a diagnosable disorder, the prevalence rate for "serious emotional diagnosis" from all four sites combined is 11.5 percent (Shaffer et al. 1995). When a more stringent criteria of a CGAS score of 50 or lower, and a score of three or higher on the measure of internal impairment are used, the prevalence rate is 6.2 percent.

The overall prevalence rates for the four MECA sites obscure considerable variability among sites. For example, with a CGAS of 60 or below, plus a DSM-III-R diagnosis, the prevalence rates were 17.8 percent for New Haven, 16.3 percent for Atlanta, 10.6 percent for New York, and 2.5 percent for Puerto Rico. The 2.5 percent figure for Puerto Rico is not due to lower rates of DSM-III-R diagnosis compared to the other sites, but rather to scores on the CGAS in Puerto Rico that showed much less impairment than in the other sites. Canino (personal communication, July 20, 1994) explained that CGAS scores were given by lay interviewers in all MECA sites, and that lay interviewers may have a bias in Puerto Rico against identifying youngsters as impaired (see appendix for listing of the narrative descriptions associated with CGAS scores for lay interviewers in MECA). This would explain the difference between the findings for the Puerto Rico versus other MECA sites, and the Puerto Rico site versus the data reported by Bird et al. (1988) where ratings were made by child psychiatrists. In fact, differences between the Puerto Rico MECA site and the other MECA sites on the internal measure of impairment, which was more directly anchored to symptoms on the DISC, was considerably less than the difference with the CGAS, again supporting Canino's explanation of the reason for the difference.

Jensen and his colleagues (1995) studied the prevalence of disorders in military dependents between 6 to 17 years of age in a military installation in the Washington, D.C. area. They used the DISC 2.3 version, and the DSM-III-R. They report that 15.8 percent of the sample received a diagnosis on the DISC, and were either in treatment or considered to need treatment. This measure of either being in treatment or considered to need treatment is one means of assessing impairment in functioning. Using a score of one for internal impairment on the DISC, indicating at least some impairment in functioning that is related to a diagnosable mental disorder, a prevalence rate of diagnosis plus impairment was 26.3 percent, relatively similar to the 32.8 percent rate obtained in MECA. When a score of two or more for impairment was required from the internal measure of impairment, a closer approximation to "substantial"

impairment, the prevalence rate was 18.6 percent.

Costello and her colleagues (1995) used the CAPA and the DSM-III-R in a two-stage community epidemiological study in the Great Smoky Mountains area of western North Carolina. This was not only the first community epidemiological study to use the CAPA, but also was the first study to use the CAFAS as one of the measures of functional impairment (Hodges 1990). In addition to the CAFAS, the GSMS also used the CGAS and an internal measure of impairment built into the CAPA.

This study reports that 19.3 percent of the group received a DSM-III-R diagnosis on the CAPA. This figure is lower than other studies, and may partially reflect that the CAPA was constructed to be used primarily with the DSM-IV system, the latest diagnostic system which is more stringent than the DSM - III-R in requiring an indication of significant distress or impairment for a diagnosis to even be obtained. The rate of diagnosis plus impairment was 9.2 percent, using a score of one or greater on the measure internal to the CAPA, 7.3 percent with a score of two or greater, and 5.2 percent with a score of three or greater on this same measure. While it is not possible to directly compare scores on the CAPA internal measure of impairment with scores on the DISC internal measure of impairment, it seems reasonable to conclude that, as with the DISC, a score of one on internal impairment may not be a good approximation of the CMHS concept of "substantial" impairment.

With a CGAS of 60 or lower in the GSMS, the prevalence rate of diagnosis plus impairment was 1.8 percent, and with a CGAS of 50 or lower, the prevalence rate of diagnosis plus impairment was .5 percent. Using the CAFAS, the prevalence rate of diagnosis plus impairment was 10.2 percent with a score of 10 or higher, 6.2 percent with a score of 20 or higher, and 4.5 percent with a score of 30 or higher as the criteria. The rates for any diagnosis are lower in the GSMS than in any of the other studies, and the rates of diagnosis plus impairment are lower than any study with the exception of the Puerto Rico site in the MECA study.

Kessler (personal communication 1995) developed prevalence estimates of diagnosis plus substantial impairment for the 15 to 17 year-olds who participated in his national co-morbidity study (Kessler et al. 1994). Using the CIDI, and only one source of information, and a very different set of indicators of impairment as already presented, Kessler obtained a rate of 8.7 percent in comparison to a rate of 6.5 percent for 18 to 54 year-olds using the same methodology.

The final data bases come from additional analyses by Costello and Messer (1995) of findings from several studies. These additional analyses, conducted by Costello and Messer at the request of the Center for Mental Health Services, specifically to assist in this estimation procedure, were all based on measures of functioning in the school, home, and community settings. In order to try to establish a common measure of impairment, the CBCL scale of Social Competence (Achenbach and Edelbrock 1983), which was available for five of the seven data bases, was used. These additional analyses were based on data from the following studies:

-- A study of 386 17 to 19 year-olds in the Boston area conducted by Reinherz and her colleagues (Reinherz et al. 1993), and using the Diagnostic Interview Schedule (DIS), an adult instrument, the DSM-III-R system, and study-specific measures of functioning in school, the community and at home;

-- The two waves of the Pittsburgh HMO study conducted by Costello, and already discussed, but now using the Social Competence scores of the CBCL as a measure of impairment;

-- The study by Bird et al. (1988) in Puerto Rico, already discussed but now also using the CBCL Social Competence to assess impairment;

-- The upper New York study of 9 to 18 year-olds by Cohen and her colleagues (Cohen et al. 1993), in which the DISC Version 1 was used, and study-specific measures of impairment, derived from the CBCL, were used; and

-- The Great Smoky Mountains Study of Costello, with the sample broken down into an American Indian group and the remainder, and using the Social Competence scale of the CBCL as the measure of impairment.

Table 6.2 shows the overall prevalence rate for any disorder in each of these data bases, plus the rate of impairment is computed two different ways. The first way, called "global," represents diagnosis plus an overall, global score on the Social Competence scale in the bottom 10 percent. The second way, called "domain specific," indicates the presence of diagnosis plus a score in the bottom 10 percent on one or more of the three domains in the Social Competence scale -- school, home, and community.

Consistent with the previous discussion, these data show the lowest prevalence rate in the North Carolina sample. The highest rate is in Puerto Rico. While the Boston site has the second highest rate for diagnosis and for domain-specific impairment, this is based on a different set of diagnoses and the use of an adult instrument. Since most participants in the Boston site were adults, diagnoses of conduct disorder, attention deficit with hyperactivity disorder, and oppositional defiant disorder were not used and, on the other hand, the prevalence rate of alcohol and/or drug abuse alone was 27.5 percent.

These analyses use a statistical basis for determining the level of impairment, with a cutoff point of the 10 percent lowest on the Social Competence scale. Overall, using this 10 percent cutoff point on the global measure, the prevalence of serious emotional disturbance was 5.8 percent. If a 15 percent cutoff point was used, the rate goes up to 8 percent, and with a 20 percent cutoff point, the rate is 10.3 percent. The rates are also obviously higher when the requirement is to reach the cut-off point on any one of the three domains, rather than on the global score.

These analyses also use an instrument which, while it assesses performance in three important life domains that are consistent with the CMHS definition of functional impairment, was designed to measure competence rather than impairment.

Best Estimate of Prevalence

Since there is no one study of national scope from which to derive a single estimate of prevalence, and since there are insufficient data to assess how or if prevalence rates vary for different age groups, racial and ethnic groups, genders, and socio-economic groups, the Work Group recommends that prevalence be estimated with a range for both levels of impairment. The use of two estimates is similar to the approach taken by the Work Group that examined prevalence rates for adults; this group distinguished between "serious" and "severe" mental illness (Kessler et al. 1995). The present distinction for children is between two levels of impairment; children at both these levels of impairment are considered to have a "serious emotional disturbance," however.

The recommended range is 9 to 13 percent for the less conservative range, and 5 to 9 percent for the more conservative range. The difference between the two estimates is that the measured level of functional impairment is greater in the second estimate.

These estimates are based on a review of the studies just summarized, and included in tables 6.1 and 6.2. There are three studies that produced prevalence rates higher than the upper limit of the less conservative range. The Kashani study yielded a rate of 18.7 percent. It is hard to depend heavily on this study, however, as it had a small sample size (n=150), was the only study to use the DICA, and used a measure of impairment that was specifically developed for the study, and not used elsewhere. Bird et al.

Table. 6.2 Summary of Findings from Report by Costello & Messer (1995)

Site	Prevalence of Any Disorder	Prevalence of Any Disorder Plus Impairment: Global (10% Cut-off)	Prevalence of Any Disorder Plus Impairment: Any Domain (10% Cut-off)
Boston	43.0	5.4	14.0
NY	17.4	5.8	6.4
NC	11.1	3.2	4.3
NC-American Indian Sample	12.7	4.3	6.5
Pittsburgh-I	23.6	4.4	7.7
Pittsburgh-II	31.3	5.8	13.1
Puerto Rico	54.5	7.4	16.9

* Excludes 30.6% who received a diagnosis of Phobia

Median Prevalence Rate of Serious Emotional Disturbance with Global Impairment	Cut-off Point on CBCL
5.8%	Bottom 10%
8.0%	Bottom 15%
10.3%	Bottom 20%

obtained a prevalence rate of diagnosable disorder plus CGAS of 60 or less of 17.9 percent. This estimate for children and adolescents in Puerto Rico was considerably higher than the more recent estimate for the Puerto Rico site from the MECA study (a rate of 2.5 using CGAS of 60 or less as the measure of impairment). One of the differences is that the CGAS scores were assigned by child psychiatrists in the Bird study and by trained lay interviewers in the MECA study. Also, the Bird study did not use the algorithms for converting responses on the DISC to diagnoses, because the algorithms were undergoing modification at the time. Instead, the answers to the DISC questions served as a general guide to the clinicians, who then assigned diagnoses. Further, the study by Bird et al. (1988) included children as young as four, making it the only study to include such young children, and one of only two studies going beneath nine years of age.

The third study to come up with a higher estimate than the upper limit of the proposed range is the recent study by Jensen et al. (1995) on a population of military dependents between 6 and 17 years of age. As Jensen et al. indicate, their findings were "similar to or lower than the preliminary findings" (p. 1517) from the MECA study. This was the case both with overall prevalence of diagnosis (50 percent in MECA and 40 percent in Jensen), and the prevalence of diagnosis plus a score of one or more on the measure of impairment that is internal to the DISC -- Version 2.3 (32.8 percent for MECA and 26.3 percent for Jensen). Such a score on the internal measure of impairment is not likely to indicate the substantial functional impairment called for in the CMHS definition of serious emotional disturbance. Jensen determined that 18.6 percent of the sample both had a diagnosis and an indication of impairment in two or more areas of functioning, and 15.8 percent had a diagnosis, and were either in treatment or in need of treatment. Both of these criteria appear to be a more reasonable indication of substantial functional impairment than a score of one or more on the measure of internal impairment, although they still leave the Jensen estimates as being higher than the estimates proposed here.

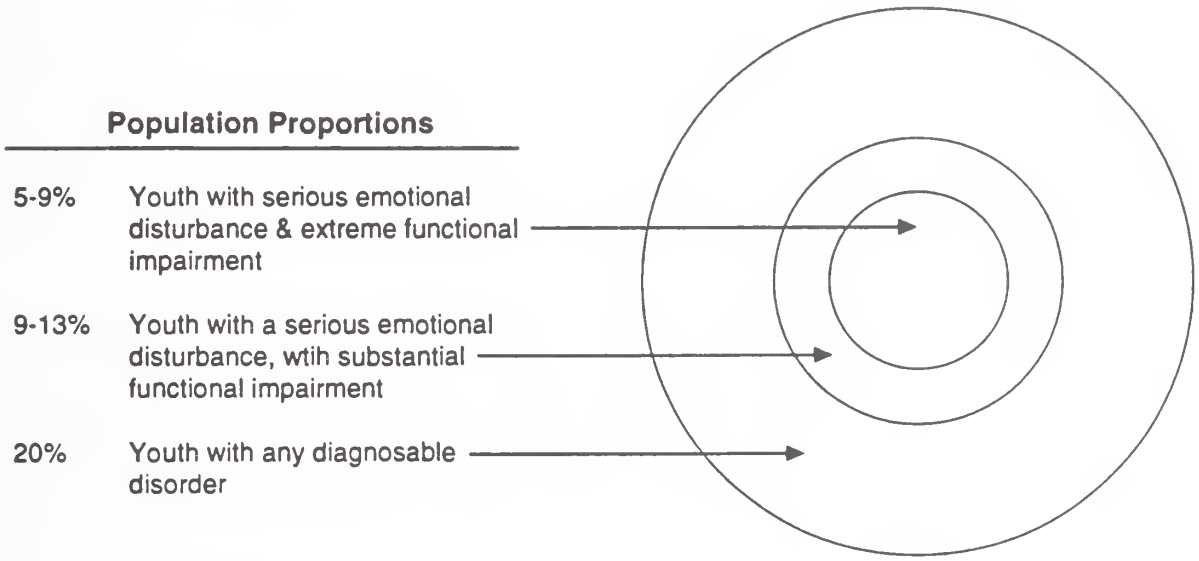
In the Costello studies in Pittsburgh (1988; 1994), estimates of 9.1. percent and 10.8 percent were derived for the two waves, using CGAS scores of 60 or less as the cutoff point for substantial impairment. These both fall within the estimate range recommended here.

The degree to which the results for the MECA study are consistent with this range depends upon the measures of impairment used. With a CGAS of 60 or less, the prevalence rate is 12.8 percent, and with a CGAS of 60 or less, plus a score for impairment of one or more, the overall rate is 11.5. percent. With a more stringent cutoff point on the internal measure of impairment of three or more, the scores fall within the 9 to 13 percent range. Furthermore, using the internal impairment measure which is anchored to reports of symptoms on the DISC, the rates for Puerto Rico more closely approximate the rates for the other three MECA sites than is the case with the CGAS measure.

The only study to produce rates below the lower boundary of the estimated range is the Great Smoky Mountains Study (Costello et al. 1995), unless an internal impairment score of one on the CAPA is used, in which case the prevalence estimate is 9.2 percent. Using the internal impairment score of two on the CAPA, the prevalence estimate is 7.3 percent, and using the CAFAS cut-off score of 20 or higher, the prevalence estimate is 6.2 percent. It is possible that the lower estimates in the GSMS are partly due to the use of the CAPA. The CAPA was designed with the new DSM-IV system in mind, and therefore builds in a greater requirement of impairment to get a diagnosis, than is the case with the DISC. Not only is the overall prevalence rate of serious emotional disturbance lower in this study than the others, but also the overall rate of any diagnosis is considerably lower (19 percent compared to 50 percent for MECA and Bird, and 40 percent for Jensen).

The final study to be briefly mentioned is the Kessler (1994) study. Using a different measure of diagnosis and different measures of impairment, and the adult diagnostic system which, for example, does not include a diagnosis of conduct disorder, and also using only a single informant, the estimate of serious emotional disturbance is 8.7 percent.

Figure 6.1. Prevalence of Serious Emotional Disturbance (9 to 17 year-olds)


Population Proportions
5-9%
Youth with serious emotional disturbance & extreme functional impairment
9-13%
Youth with a serious emotional disturbance, wtih substantial functional impairment
20%
Youth with any diagnosable disorder

There are only a few studies that can be used as a basis for deriving the estimate for the more conservative range. The data from MECA indicate that if the criteria for impairment is a CGAS of 50 or lower, the prevalence estimate is 6.2 percent, and if it is a score of five or higher on the internal measure of impairment, the prevalence estimate is 10 percent to 12 percent (Shaffer, personal communication August, 1994). The data from the GSMS study indicate that if a score of three or higher on the internal measure of impairment is used, the prevalence estimate is 5.2 percent, and if a score of 30 or higher on the CAFAS is used, the prevalence estimate is 4.5 percent. With the exception of the CGAS data from the Puerto Rico site of the MECA study, and the GSMS, there is a convergence around the rates of 5 percent to 9 percent.

Even with the shortcomings already discussed in the secondary analysis presented by Costello and Messer (1995) of several data bases, their data provide general support for these ranges. With a cut-off point of the 90th percentile on the Social Competence Scale of the CBCL, they derive a median of 5.8. percent on the general domain, and with less stringent cut-off points of the 85th or 80th percentile, they arrive at medians of 8.0 percent and 10.3 percent. These data are consistent with a range for the more conservative estimate of 5 percent to 9 percent, and for the less conservative estimate of 9 percent to 13 percent.

There are several indications that despite the shortcomings in the conceptualization and measurement of functional impairment, there is a relationship between serious emotional disturbance as measured here, and use of mental health services. For example, Leaf et al. (in press), found that at three of the four MECA sites, a majority of the children with a CGAS of 70 or under had received some mental health service in the past year. Both in the GSMS and the analysis of other data bases, Costello (Costello et al. in press); (Costello and Messer 1995) found a greater use of mental health services by youth who had serious emotional disturbance, than by those who did not have a serious emotional disturbance. In support of the approach used in this report, Cohen et al. (1993), and Robins (1985) both indicate that it is useful to establish severity levels in determining the service implications of diagnoses.

Based on this analysis of the findings from the studies reviewed here, and the sampling, measurement, and overall methodological considerations, it is recommended that the estimate of prevalence of serious emotional disturbance be in the range of 9 percent to 13 percent. It is recommended that the range of 5 percent to 9 percent be used if a more stringent definition of substantial impairment is required. These recommendations are illustrated in figure 6.1. For comparison purposes, this figure also includes an estimated prevalence for any diagnosable mental disorder (with or without substantial impairment). The figure of 20 percent is used. This is the upper limit of the estimate offered by Brandenburg, Friedman, and Silver (1990), is consistent with the estimate offered by Costello (1989), and with the findings from the Great Smoky Mountains Study (19.3 percent). It is considerably lower than the estimated prevalence obtained in MECA (50 percent), by Bird et al. in 1988 (50 percent), and Jensen et al. in 1995 (40 percent), and should therefore be considered to be a conservative estimate of prevalence of any diagnosable disorder (with or without substantial impairment in functioning).

Limitations of Estimate

There are several limitations that must be reiterated for these estimates. First, it must be recognized that these estimated ranges are based on the findings from many modest-sized studies which varied not only in population but often in instruments that were used (particularly for measurement of impairment), methods that were used to collect the data, and even the diagnostic system that was used.

Second, there are only two studies that include youngsters under the age of nine, and these studies are not adequate to provide a base for any estimate of the prevalence of serious emotional disturbance for children under the age of nine. The estimate presented here is intended for children between 9 and 17 years of age.

Third, the data are also inadequate to determine prevalence estimates for children of different racial and ethnic backgrounds. Several of the studies included youngsters of color in their sample and two studies were done exclusively on Hispanic youngsters in Puerto Rico (Bird et al. 1988, and one of the MECA sites). However, the sample sizes are too small and not sufficiently representative of African-American, Hispanic, Asian American, or native American populations to permit estimates to be made.

Fourth, within the 9 to 17 year age range, the data are more adequate to permit determination of gender and socio-economic differences. The comparative analyses by Costello and Messer (1995) are particularly useful for this purpose. Both for global and specific measures of impairment, they find the prevalence rates of serious emotional disturbance in the samples already mentioned to be about twice as high in low socio-economic groups as in high socio-economic groups. This finding is consistent for every one of the seven data bases included in the analysis by Costello and Messer (1995). Jensen et al. (1995) fail to find different prevalence rates by socio-economic status in their study. However, as they point out, the socio-economic range in their sample was limited by the fact that all of the youngsters were military dependents.

These same analyses show very similar prevalence rates for girls and boys in the seven sites. The absence of gender differences is also apparent in the findings of Jensen et al. (1995). Kessler (1995), however, reports a higher prevalence rate in females than males using the adult diagnostic categories, and an older adolescent sample (15 to 17 year-olds).

With the absence of any large National studies, it is not possible to determine whether rates differ in urban versus rural areas, or different regions of the country.

Overall, therefore, there is support for the use of socio-economic status as a correction factor in developing a methodology for the estimation of the prevalence of serious emotional disturbance. There is no basis at this point for using other correction factors.

Summary and Recommendations

Based on the CMHS definition of serious emotional disturbance, and the existing data bases which provide prevalence rates that can be applied to this definition, it is estimated that the prevalence rate of serious emotional disturbance in children 9 to 17 years of age is in the range of 9 percent to 13 percent. It is also concluded that if a more stringent definition of impairment, is desired than was used for the estimated range of 9 percent to 13 percent, then the range is from 5 percent to 9 percent. The difference between the two estimates is that the measured level of functional impairment is greater in the second estimate, and has been characterized in figure 6.1 as "extreme functional impairment." Children at both levels of impairment are considered to have a "serious emotional disturbance," however, and the group of children falling into the range of 5 to 9 percent constitutes a subset of the 9 to 13 percent.

It is further concluded that the prevalence rate is higher for youngsters living in low socioeconomic circumstances than for youngsters living in high socioeconomic circumstances, and it is recommended that this difference be adjusted for by States in making their prevalence estimates. The available data are not sufficient to determine a precise statistical model for adjusting prevalence estimates to account for differing levels of poverty. It is recommended, instead, that States with a poverty rate more than five percent higher than the national average should use an estimate at the upper end of the prevalence range provided here (13 percent), and States with a poverty rate of more than 2.5 percent but less than 5 percent higher than the national average should use a prevalence estimate of 12 percent. Similarly, States with a poverty rate more than five percent below the national average should use an estimate at the lower end of the range (9 percent), and States with a poverty rate between 2.5 percent and 5 percent lower than the national rate should use a prevalence estimate of 10 percent. States within 2.5 percent of the national average should use estimates in the middle of this range (11 percent).

It is further concluded that the data are presently inadequate to estimate prevalence rates for children under the age of nine, or to determine if prevalence rates differ for racial or ethnic groups, or for youngsters from particular regions of the country or types of communities. There is no indication that the overall prevalence rate of serious emotional disturbance differs by gender within the 9 to 17 year age range although there clearly are gender differences in prevalence of particular diagnoses, such as conduct disorder and depression, and there are suggestions that the rates may diverge in later years of adolescence.

It should be noted that the estimated prevalence range for 9 to 17 year-olds is higher than the range recommended by Kessler et al. (1995) for serious mental illness in adults (5.7 percent). This is consistent with the fact that using the National Comorbidity Study (NCS) data base, which served as the main data base for the estimation of prevalence in adults, Kessler found that the 12-month prevalence for 15 to 17 year-olds was higher than the rate for 18 to 54 year-olds, using the same instruments, definitions, sampling procedures, and data collection methodologies (Kessler 1995, personal communication -- a prevalence of 8.7 percent for 15 to 17 year-olds, and 6.5 percent for 18 to 54 year-olds). To understand this difference, however, it is important to recognize that within the 18 to 54 year age range there are differences associated with age. For example, in the first article reporting age differences in 12-month prevalence of disorders based on the NCS data, it was reported that "disorders are consistently most prevalent in the youngest cohort (age range 15 to 24 years), and generally decline monotonically with age" (Kessler et al. 1994, p.13). This was also the case with serious mental illness, as reported by Kessler et al. (1995). This finding of highest prevalence rates in youngest adults with rates decreasing with increasing age was not only obtained in the NCS, but also in the Epidemiological Catchment Area study completed in the early 1980s (Regier et al. 1988). Also, the longitudinal research by Cohen et al. (1993), and the findings by Reinherz et al. (1993) on 17 to 19 year-olds point to especially high prevalence rates for older adolescents.

Presently, a study using a nationally representative sample of children aged 4 through 17 is being funded by the National Institute of Mental Health, and is in the planning stage. This study, called Utilization, Need, Outcomes, and Costs for Child and Adolescent Populations (UNOCCAP), may be very helpful in more clearly delineating overall rates of disorders and impairment, and particularly rates for younger children and for children of different racial and ethnic backgrounds. The task of developing the appropriate instrumentation for this study, particularly for young children, remains a major challenge to the field, however.

There is an important need as well for further work in the field to examine the area of functional impairment. The technical group believes that this concept is extremely important and merits further work conceptually, methodologically, and through community and clinical studies. The most important issue, particularly from a policy standpoint, may not be the actual prevalence of disorders, but the impact of the disorders on functioning in important areas, and the impact of policies, system structures, and services on levels of functioning. Yet the subject of functional impairment has received inadequate attention. The absence of adequate data, theory, and instrumentation not only increased the difficulty of the present task, but has also created a major problem for policy-makers, researchers, and clinicians.

From the standpoint of planning service needs, it is recommended that the higher range presented here be used. As was pointed out in a recent review (Friedman et al. 1996) in considering the service implications of the prevalence data, it should also be noted that there is a high rate of stability and persistence of serious emotional disorders, and that they have long-term effects in many domains of functioning. Costello and Messer (1995) point out that "children with serious emotional disturbance are more than four times as likely as other children to use professional mental health services. It is nevertheless the case that fewer than one child in four with serious emotional disturbances had recently received mental health care." Leaf et al. (in press) point out that a large percentage of children with serious emotional disturbances who receive mental health services, receive these services in schools, social service agencies, or juvenile justice agencies, both creating a need for collaborative multi-agency systems of care, and for understanding potential cost-shifting from one system to another.

The implications of these findings, in combination with prevalence findings, are that there is a large percentage of children who need mental health services, that even children with serious emotional disturbances still appear to be greatly underserved, that their problems and service needs are not transitory, that many systems are involved in providing services, and that there is a need for effective systems of care in which the agencies work collaboratively, and in which both service delivery and financing are viewed comprehensively.

Acknowledgements

Robert M. Friedman, Ph.D. served as Chair of the Work Group. He is currently Professor and Chair, Department of Child and Family Studies, Florida Mental Health Institute, University of South Florida.

Judith Katz-Leavy, M.Ed. is Senior Policy Analyst, Office of Policy and Planning, Center for Mental Health Services.

Ronald W. Manderscheid, Ph.D. is Chief, Survey and Analysis Branch, Center for Mental Health Services.

Diane L. Sondheimer, M.S., M.P.H. is Deputy Chief, Child, Adolescent and Family Branch, Center for Mental Health Services.

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Thomas M. Achenbach, Ph.D., University of Vermont; Lenore Behar, Ph.D., North Carolina Department of Human Resources; Hector R. Bird, M.D., Columbia University, New York State Psychiatric Institute; Glorisa Canino, Ph.D., University of Puerto Rico; Michele Cooley-Quille, Ph.D., George Mason University; Elizabeth J. Costello, Ph.D., Duke University Medical Center; Marie Danforth, M.S.W., Center for Mental Health Services; Gary De Carolis, M.Ed., Center for Mental Health Services; Rene C. Grosser, Ph.D., New York State Office of Mental Health Services; Barbara J. Guthrie, Ph.D., R.N., University of Michigan; Thomas V. Hanley, Ed.D., U.S. Department of Education; Kimberly E. Hoagwood, Ph.D., National Institute of Mental Health; Kay Hodges, Ph.D., Eastern Michigan University; Barbara Huff, Federation of Families for Children's Mental Health; Peter S. Jensen, M.D., National Institute of Mental Health; Krista Kutash, Ph.D., University of South Florida; Philip J. Leaf, Ph.D., The Johns Hopkins University; William E. Narrow, M.D., M.P.H.; National Institute of Mental Health; Roy Praschil, National Association of State Mental Health Program Directors; Carolyn W. Sanger, National Alliance for the Mentally Ill, Child and Adolescent Network; David Shaffer, M.D., Columbia University, New York State Psychiatric Institute; Sandra J. Weiss, Center for Mental Health Services; David R. Williams, Ph.D., University of Michigan.

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Chapter 7

Highlights of Organized Mental Health Services in 1992 and Major National and State Trends

Richard W. Redick, Ph.D.
Private Consultant

Michael J. Witkin, M.A., C.P.A.; Joanne E. Atay, M.A.;
and Ronald W. Manderscheid, Ph.D.
Center for Mental Health Services

Introduction

During the twenty-two year period, 1970-92, considerable change has occurred in the number, capacity, structure, and operation of organizations providing mental health services in the United States. This chapter describes some of the basic changes that have occurred nationally in this service delivery system, discusses some of the policy implications of these changes for future planning purposes, and presents some comparative data by State.

The source of the organizational data presented in this chapter has been the biennial Inventory of Mental Health Organizations and General Hospital Mental Health Services (Inventory), conducted by the Survey and Analysis Branch (SAB), Division of State and Community Systems Development (DSCSD), Center for Mental Health Services (CMHS) (formerly part of the National Institute of Mental Health). The Inventory is a complete enumeration survey of all specialty mental health organizations and separate psychiatric services of non-Federal general hospitals that collects descriptive information on the number and types of services, capacity (e.g., number of beds), volume of services (e.g., numbers of episodes, additions, and resident patients), staffing, expenditures, and sources of revenue. A technical description of the Inventory is provided in the appendix to this chapter (p. 224).

The types of mental health organizations covered in this chapter are designated in each of the tables, and definitions of these organizational types appear in the appendix. Included are specialty mental health organizations under non-Federal auspices along with psychiatric services operated by the Department of Veterans Affairs [formerly called the Veterans Administration (VA)]. Excluded are the following types of services and organizations: private office-based practices of psychiatrists, psychologists, pastoral counselors, and other mental health providers; health maintenance organizations (HMOs); nursing homes; psychiatric services of all types of hospitals and outpatient clinics operated by Federal agencies other than the VA (e.g., Public Health Service, Indian Health Service, Department of Defense, Bureau of Prisons); non-Federal general hospitals, which admit psychiatric patients, but have no separate psychiatric services; organizations that are solely or primarily for the treatment of substance abuse; and psychiatric services of schools, colleges and universities, halfway houses, community residential organizations, local and county jails, State prisons, and other human service providers.

This chapter examines four organizational foci of the specialty mental health care sector, namely:

Availability -- the number of each organization type, and the number of organizations providing different kinds of mental health services (i.e. inpatient including residential treatment care, outpatient care, and partial care), as well as the capacity of these services (e.g., number of inpatient beds) (tables 7.1 and 7.2).

Volume of services -- the actual level of services provided by each organization type. Aggregate measures of service use are shown for inpatient, including residential treatment care; outpatient care; and partial care (e.g., number of additions, number of resident patients, and average daily census) (tables 7.3 - 7.7).
Staffing -- the number of full-time equivalent (FTE) personnel by discipline and training employed by each organization type (tables 7.8-7.8g).
Finances -- the expenditures made by each organization type to provide and administer services, and the amount and sources of the revenues received by these organizations (tables 7.9a, 7.9b and 7.10).

In additionn to the national tables referenced above, data by State are shown in figures 7.14-7.18, and table 7.11-7.11c.

Availability of Services

Number of Organizations and Service Settings

The total number of mental health organizations in the United States increased steadily between 1970 and 1992, from 3,005 to 5,498 (table 7.1). Almost all of this increase occurred as a result of gains in number of private psychiatric hospitals, separate psychiatric services of non-Federal general hospitals, residential treatment centers for emotionally disturbed children (RTCs), and "all other organizations" (including CMHCs), since the number of State and county mental hospitals and freestanding psychiatric outpatient clinics decreased, and the number of VA medical centers with psychiatric services remained relatively unchanged during this period.

Along with the overall increase in mental health organizations, the number of organizations providing services in various treatment settings also increased. For example, between 1970 and 1992, the number of organizations with inpatient settings nearly doubled from 1,734 to 3,415 (table 7.1) The number providing outpatient services also rose consistently during this period, from 2,156 to 3,390. Organizations with partial care services increased more rapidly, with 2,548 programs operating in 1992, more than triple the 778 reported in 1970.

Number of Psychiatric Beds

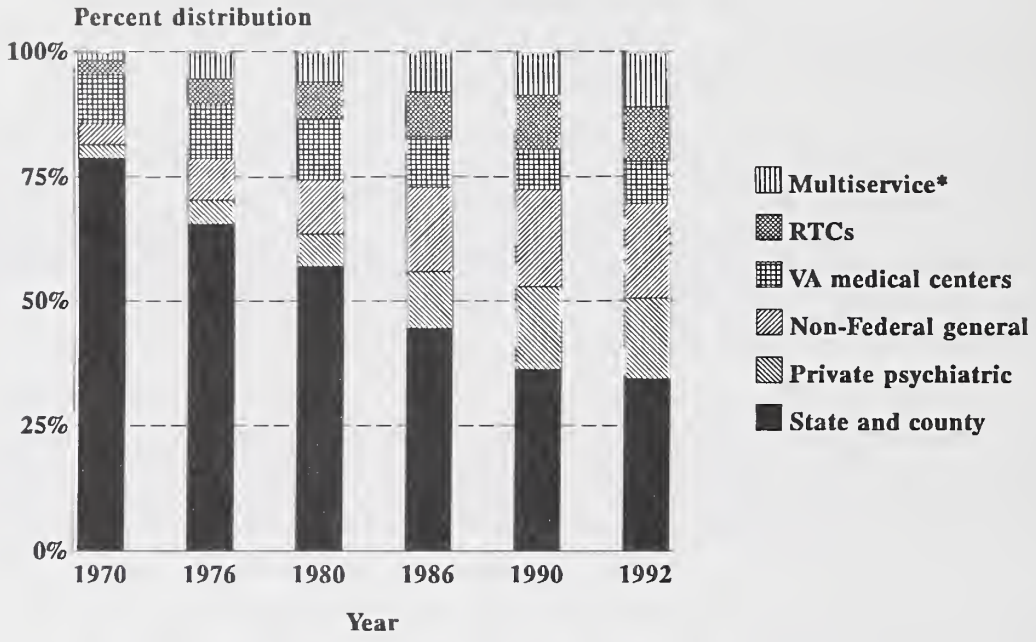
While the number of mental health organizations with inpatient and/or residential treatment services has doubled in the United States over the past 22 years, the number of psychiatric beds provided by organizations decreased by nearly half, from 524,878 in 1970, to 270,867 in 1992 (table 7.2). The corresponding bed rates per 100,000 population dropped proportionately more in the same time period, from 264 to 108. Beds in State and county mental hospitals (hereafter called State mental hospitals) accounted for most of this precipitous drop, with their number representing only one-third of all psychiatric beds in 1992, compared to almost four-fifths in 1970 (table 7.2 and figure 7.1).

Trends in bed rates for specific organization types, shown in figure 7.2, indicate that the rates for private psychiatric hospitals and non-Federal general hospital psychiatric inpatient services experienced a fair amount of increase between 1970 and 1990, with the greatest growth occurring since 1980. In 1992, however, a slight decline in their bed rates was noted. The rates for RTCs and multiservice mental health organizations were nearly flat throughout the 1970-1992 period, while the rate for State mental hospitals and VA psychiatric organizations decreased substantially. In the latter case, the fact that the decreases have decelerated markedly since 1980, while the rates for most of the other organizational types were increasing, has resulted in a virtual leveling off in the overall number or psychiatric beds and corresponding bed rates during the 1980's onward (table 7.2).

It should be noted that in each of the years shown, the number of "scatter beds" in non-Federal general hospitals available for persons with psychiatric disorders have been excluded. "Scatter beds" are those that are commingled with medical-surgical beds in non-Federal general hospitals as distinguished from those that are in the separate psychiatric services of these hospitals. Since many "scatter beds" are

used on an "as needed" basis rather than reserved exclusively for psychiatric patients, their number must be inferred from the number of persons using them. Kiesler et al. (1989), and Manderscheid et al. (1993), based on data obtained from the Hospital Discharge Survey of the National Center for Health Statistics, have estimated that about 500,000 persons with a DSM-III disorder occupy "scatter beds" annually in non-Federal general hospitals. However, they have not estimated the number of "scatter beds" from this. Further research is needed to explore the role of medical-surgical beds of non-Federal general hospitals to care for patients with a psychiatric diagnosis (Redick et al 1994a).

Figure 7.1 Percent distribution of inpatient and residential treatment beds by type of mental health organization, United States: Selected years, 1970-1992



*Includes Federally-funded community mental health centers in 1970, 1976 and 1980.

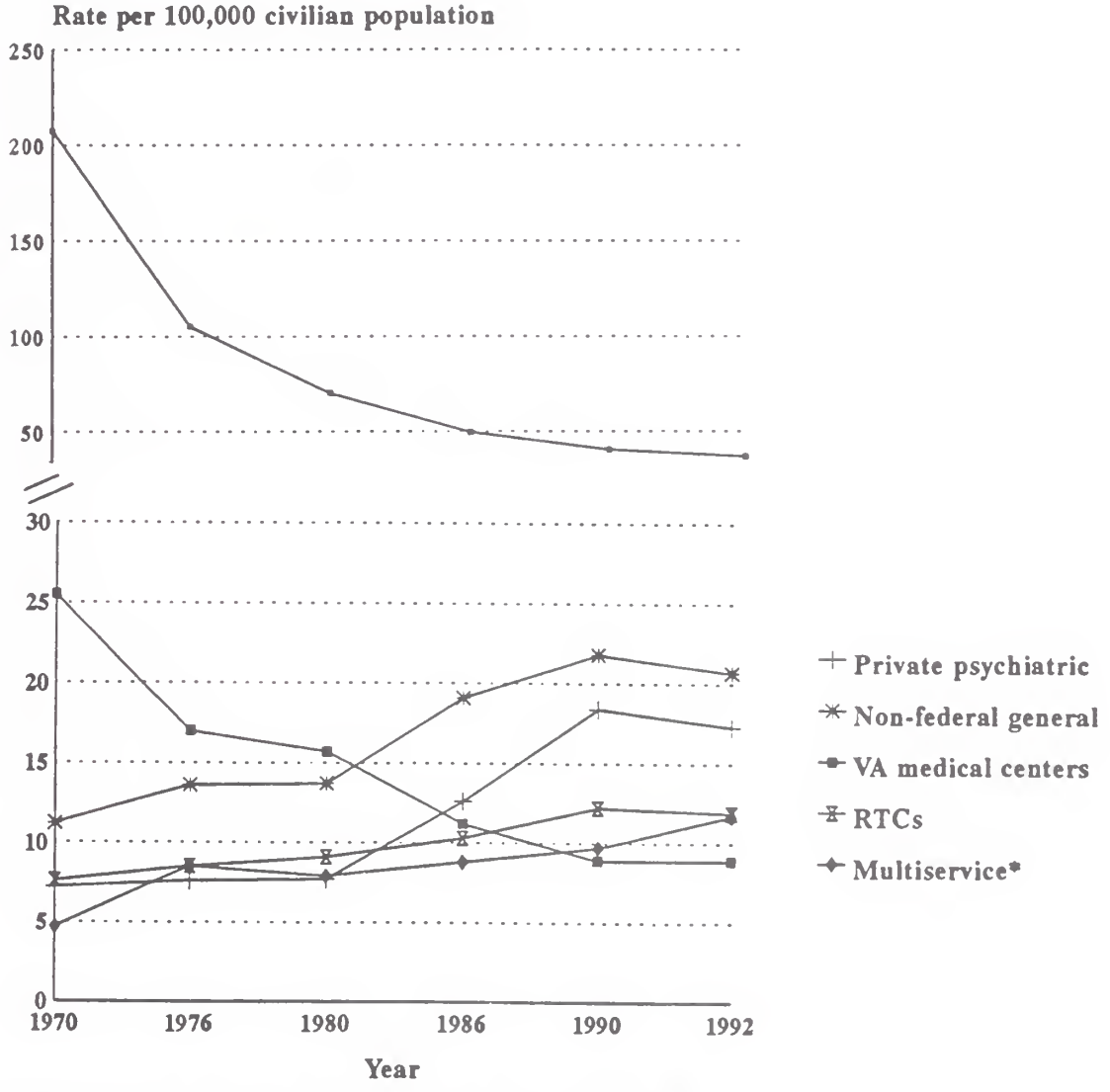
Volume of Services

Inpatient Additions and Resident Patients

The number of inpatient additions to mental health organizations increased almost steadily between 1969 and 1992, from 1,282,698 to 2,092,062, with a corresponding increase in the addition rate from 644 per 100,000 civilian population in 1969 to 830 in 1992. In 1969 almost three-quarters of the inpatient additions were about evenly divided between State and county mental hospitals and the inpatient psychiatric services of non-Federal general hospitals (table 7.3). A steady and precipitous decline in the number of inpatient additions and the addition rate to State and county mental hospitals during the 1969-92 period, accompanied by substantial increases in these measures for the non-Federal general hospital inpatient services and for private psychiatric hospitals, especially after 1979, shifted the volume of inpatient additions to these latter two organization types. By 1992, non-Federal general hospital inpatient psychiatric services accounted for almost 46 percent and private psychiatric hospitals about 23 percent of all inpatient additions, while the proportion of State and county mental hospital inpatient additions dropped to 13 percent (table 7.3 and figure 7.3). Among the other mental health organization types in which the volume of psychiatric inpatient additions was smaller, RTCs showed a more or less steady gain in

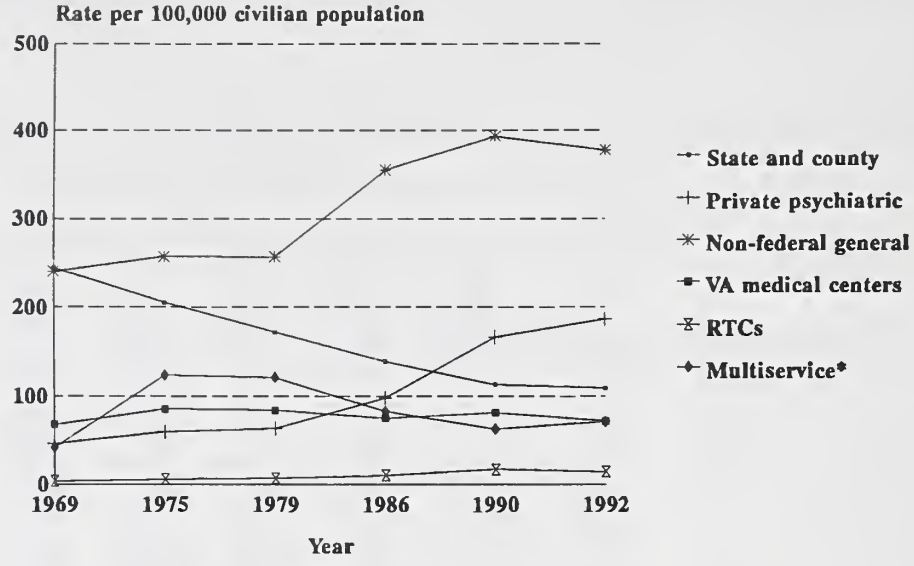
additions over the 1969-90 period, with some decrease noted in 1992, as compared with 1990. VA psychiatric organizations showed a general pattern of increase between 1969 and 1975, leveled off until 1986, unexplicably rose dramatically in 1988 (not shown in figure 7.3 and table 7.3, before decreasing through 1992, with declines in both 1990 and 1992, while "all other organizations" exhibited a more variable pattern of change, especially since 1986.

Figure 7.2 Rate of inpatient and residential treatment beds, by type of mental health organization: United States: Selected years 1970-1992



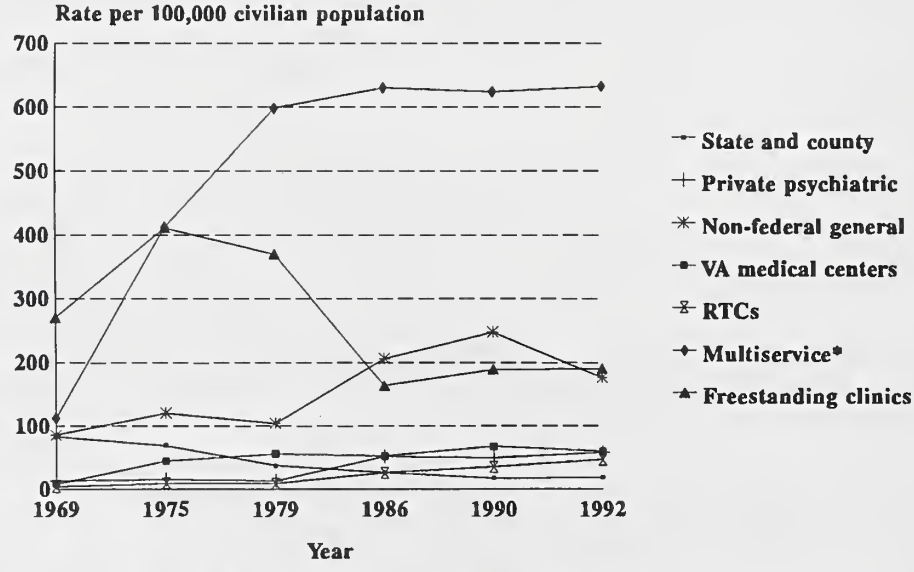
*Includes Federally-funded community mental health centers in 1970, 1976 and 1980.

Figure 7.3 Rate of inpatient and residential treatment additions, by type of mental health organization, United States: selected years, 1969-1992



*Includes Federally-funded community mental health centers in 1969, 1975, and 1979.

Figure 7.4 Rate of outpatient additions, by type of mental health organization, United States: selected years, 1969-1992



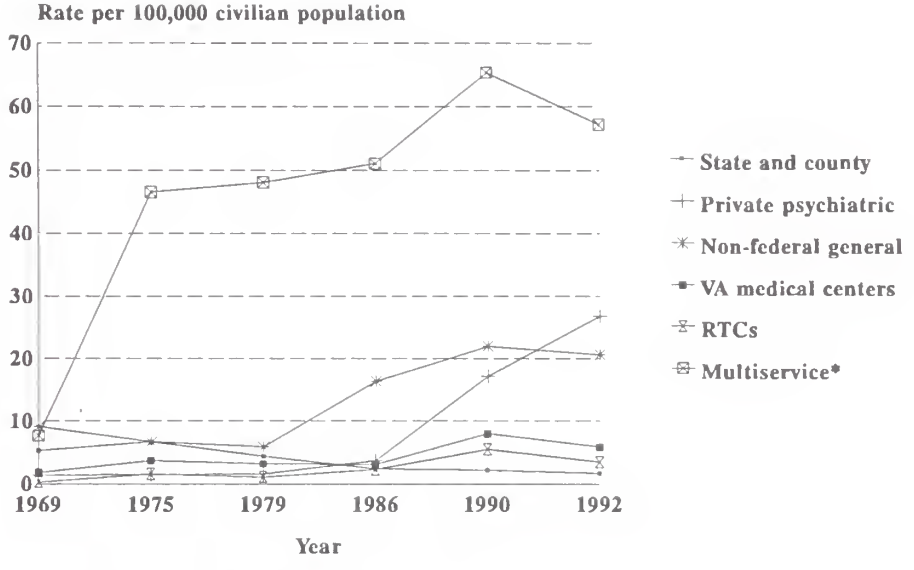
*Includes Federally-funded community mental health centers in 1969, 1975, and 1979.

While overall, psychiatric inpatient additions increased between 1969 and 1992, the number of resident patients at end of year, and the average daily inpatient census in mental health organizations underwent a general pattern of decline (table 7.4). For example, year-end resident patients dropped from 471,451 in 1969 to 214,714 in 1992, and the corresponding resident patient rate per 100,000 civilian population ranged downward from 237 to 85 in this same period. Much of this decrease occurred prior to 1979 when substantial decreases in the number of resident patients were noted for State and county mental hospitals and VA medical center psychiatric inpatient services. Subsequently, the total resident patient count has tended to level off as smaller decreases in State and county mental hospital and VA medical center resident patient populations have been offset by larger increases for private psychiatric hospitals, general hospital psychiatric inpatient services, and RTCs (table 7.4). In 1992, as in 1969, State and county mental hospitals still accounted for the largest percentage of psychiatric inpatient residents, the proportion, however, dropping from almost four-fifths in 1969 to about two-fifths in 1992 (table 7.4). Of current note, is the substantial drop in resident inpatient population for private psychiatric hospitals between 1990 and 1992.

Outpatient Additions

In the 22-year period, 1969-92, the number of psychiatric outpatient additions to mental health organizations in the United States has increased by about 2-1/2 times, from 1,146,612 to 2,882,044, and the corresponding addition rate per 100,000 civilian population more than doubled from 576 to 1,181 (table 7.5). Much of this increase occurred during the 1970s, when the number and rate of outpatient additions increased substantially to freestanding psychiatric outpatient clinics and to the "all other organization" grouping encompassing Federally funded community mental health centers and other multiservice mental health organizations (table 7.5 and figure 7.4). Since 1980, the overall increase in outpatient additions has moderated, and, in fact, a slight decrease is noted between 1990 and 1992, generated largely by a substantial decrease in outpatient additions to non-Federal general hospital psychiatric services. At both time periods, 1969 and 1992, three organization types, namely, non-Federal general hospitals, freestanding psychiatric outpatient clinics, and "all other organizations" (multiservice mental health organizations), accounted for 81-85 percent of all outpatient additions, but the bulk of the total additions (50 percent) has shifted from freestanding psychiatric outpatient clinics in 1969 to "all other organizations" (multiservice mental health organizations) in 1992 (table 7.5).

Figure 7.5 Rate of partial care additions, by type of mental health organization, United States: Selected years, 1969-1992



*Includes Federally-funded community mental health centers in 1969, 1975, and 1979

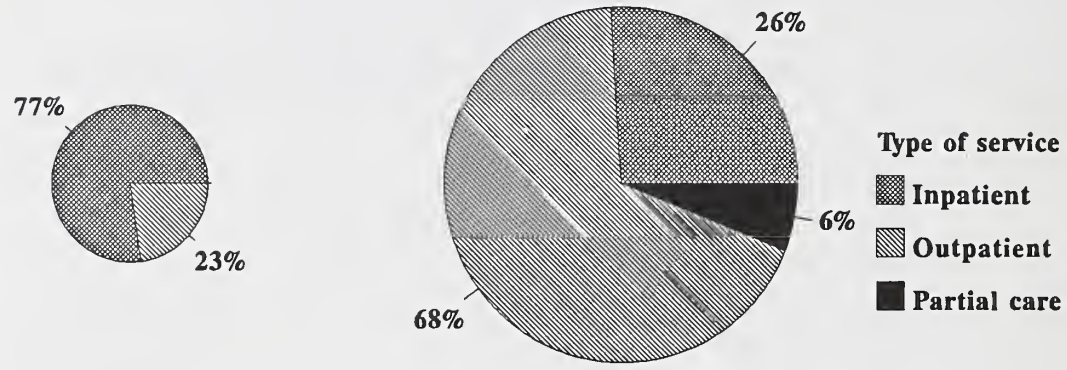
Partial Care Additions

The number of partial care additions to mental health organizations in the United States increased more than five-fold between 1969 and 1992, from 55,486 to 282,393, and the addition rate per 100,000 civilian population increased four-fold, from 27.8 to 115.8 (table 7.6). However, the 1992 figure represents a reversal of the trend in the increase of these additions between 1969 and 1990. Up to 1990, all of the various types of mental health organizations experienced fairly significant gains in the number of partial care additions, the exceptions being State mental hospitals where the number of additions had decreased by 50 percent since 1969. In 1992, all of the organization types showed decreases in partial care additions with the exception of private psychiatric hospitals (table 7.6 and figure 7.5).

Patient Care Episodes

Patient care episodes, unlike the other volume measures shown, provide an estimate of the number of persons under care throughout the year. They are defined as the number of persons receiving services at the beginning of the year in the inpatient, outpatient, and partial care services of mental health organizations plus the number of additions to these services throughout the year. They are a duplicated count in that persons can be admitted to more than one type of service, or can be admitted to the same service more than once during the year.

Figure 7.6 Patient care episodes in mental health organizations in 1955 and 1992



1955
(1.7 million episodes)

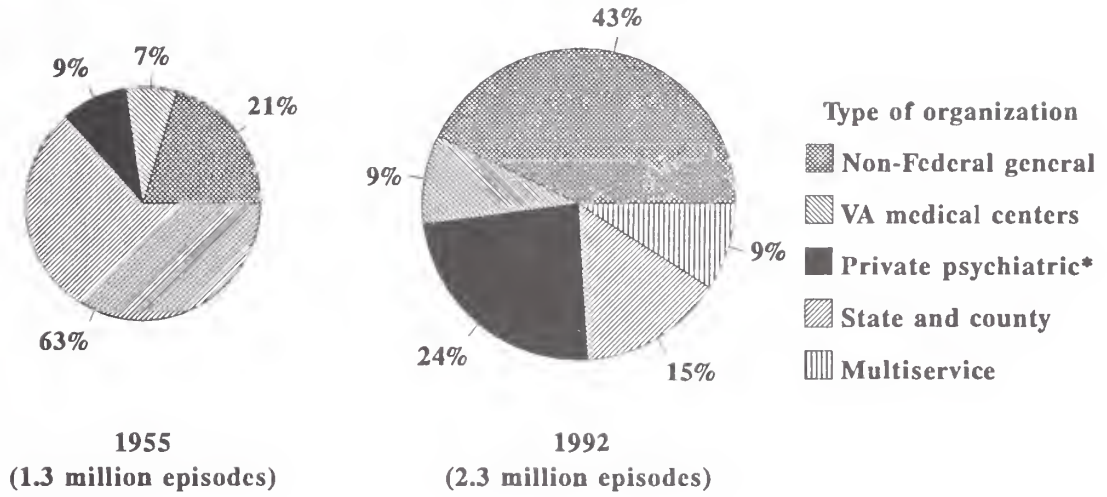
1992
(8.8 million episodes)

Patient care episodes have been tracked by NIMH and CMHS since 1955. Over this 37 year period, the locus of mental health care in the United States has shifted from inpatient to ambulatory services, as measured by the number of patient care episodes. Of the 1.7 million episodes in 1955, 77 percent were in inpatient services and 23 percent in outpatient; by 1971, there were 4.2 million episodes, of which 42 percent were in inpatient and 58 percent in outpatient and partial care; and by 1992, 74 percent of the 8.8 million episodes were in outpatient (68 percent) and partial care (6 percent) and only 26 percent were in inpatient services (table 7.7 and figure 7.6).

Along with the shift of patient care episodes from inpatient to outpatient services, a shift has also occurred across organization types, both within inpatient and outpatient services. State mental hospitals accounted for 63 percent

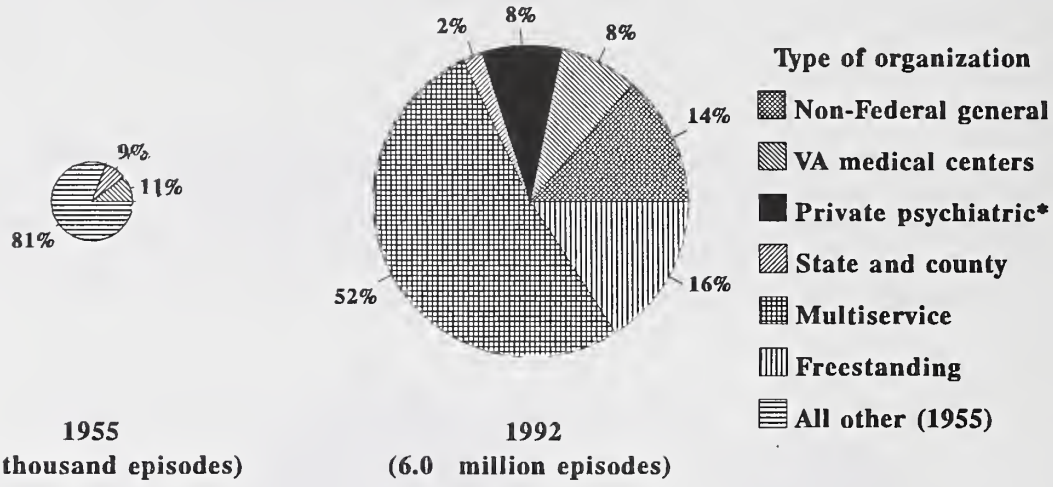
of the inpatient episodes in 1955, compared with only 15 percent in 1992. By contrast, the psychiatric inpatient services of non-Federal general hospitals and private psychiatric hospitals, community-based organizations which comprised 21 and 9 percent, respectively, of total inpatient episodes in 1955, accounted for 43 and 24 percent, respectively, in 1992 (figure 7.7). The proportion of total outpatient care episodes provided by State mental hospitals and VA medical centers was considerably higher in 1955 (92 percent) than in 1992 (60 percent), while those of all other organizational types combined were substantially lower in 1955, than in 1992 (figure 7.8) (Redick et al. 1994b).

Figure 7.7. Inpatient and residential treatment care episodes in mental health organizations in 1955 and 1992



*Includes residential treatment centers for emotionally disturbed children.

Figure 7.8 Outpatient care episodes in mental health organizations 1955 and 1992



*Includes residential treatment centers for emotionally disturbed children.

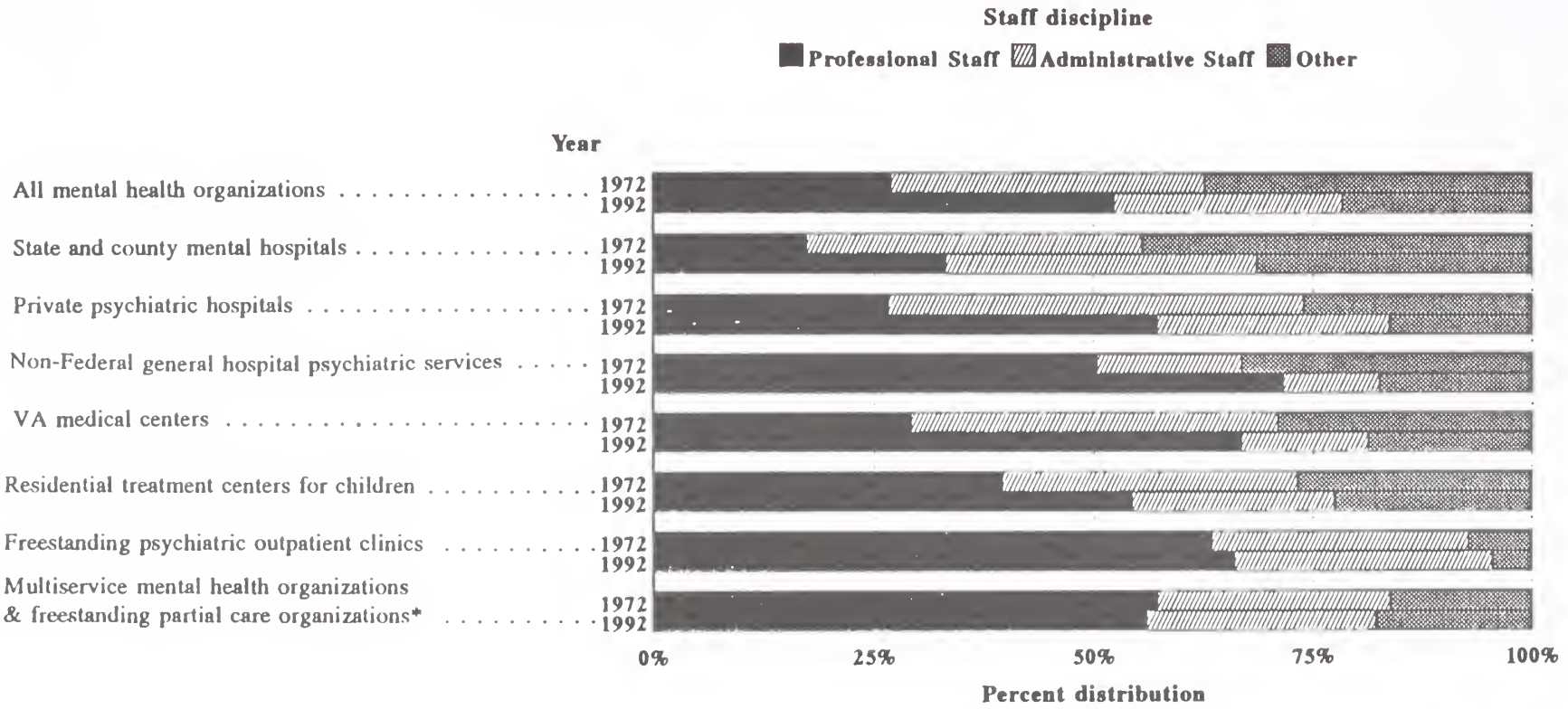
Staffing of Mental Health Organizations

Concomitant with increases in the number of mental health organizations and patients served by these organizations, the number of full-time equivalent (FTE) staff employed by these organizations increased steadily between 1972 and 1992, from 375,984 to 585,972 (table 7.8). Almost all of this increase was attributed to professional patient care staff which increased from 100,886 to 305,988 during this period. In 1972, professional patient care staff comprised only about one-quarter of all FTE staff compared to slightly more than one-half of all staff in 1992 (table 7.8 and figure 7.9). Among the professional patient care staff disciplines, the largest proportional gains over the 20-year period were noted for psychologists, social workers, registered nurses, and other mental health professionals.

By contrast, the number of other mental health workers (less than B.A.) employed in mental health organizations showed a variable pattern of increases and decreases between 1972 and 1992, with a smaller number being reported in 1992 (126,878) than in 1972 (140,379) (table 7.8). Similarly, the number of FTE administrative, clerical, and maintenance staff showed only a modest numerical gain over the 1972-1992 period, increasing from 134,719 to 153,106. As a result of these small increases or decreases, each of these two disciplines, as a percentage of all FTE staff, dropped from slightly over 36 percent in 1972 to only 22 percent for other mental health workers, and 26 percent for administrative and support staff in 1992 (table 7.8 and figure 7.9).

The mental health organization types which showed the largest proportional increases in number between 1972 and 1992, namely, private psychiatric hospitals, non-Federal general hospital separate psychiatric services, RTCs,

Figure 7.9. Percent distribution of full-time professional, administrative, and other patient care staff in mental health organizations in the United States, 1972 and 1992



*Includes Federally-funded community mental health centers in 1972.

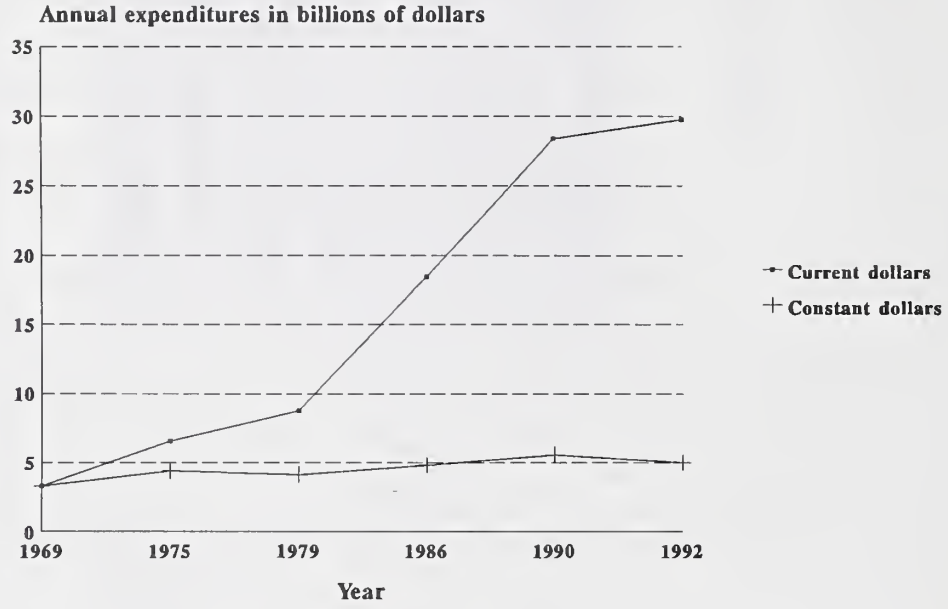
and "all other organizations," accounted for all of the increase in total FTE staff among mental health organizations during this period. However, with respect to professional patient care staff, all of the organization types, with the exception of "all other organizations," showed proportional gains in this staff grouping, whereas, the percentage of the other two major staff groupings (i.e., other mental health workers, and administrative, clerical, and maintenance staff), in general, declined or remained in a relatively narrow range among each of the organization types during this period (tables 7.8a through 7.8g and figure 7.9).

Financing of Services

Expenditures

Total expenditures by mental health organizations in the United States, as measured in current dollars, increased almost nine-fold between 1969 and 1992, from $3.3 to $29.8 billion. However, when adjustments were made for inflation, i.e., expenditures were expressed in constant dollars (1969=100), the total expenditures rose from $3.3 billion in 1969 to just under $5 billion (51 percent) in 1992 (figure 7.10, tables 7.9a and 7.9b). Thus, only $1.7 billion or six percent of the $26.5 billion increase in current dollar expenditures between 1969 and 1992 represented an increase in purchasing power, while 94 percent of the increase was due to inflation (Witkin et al. 1994).

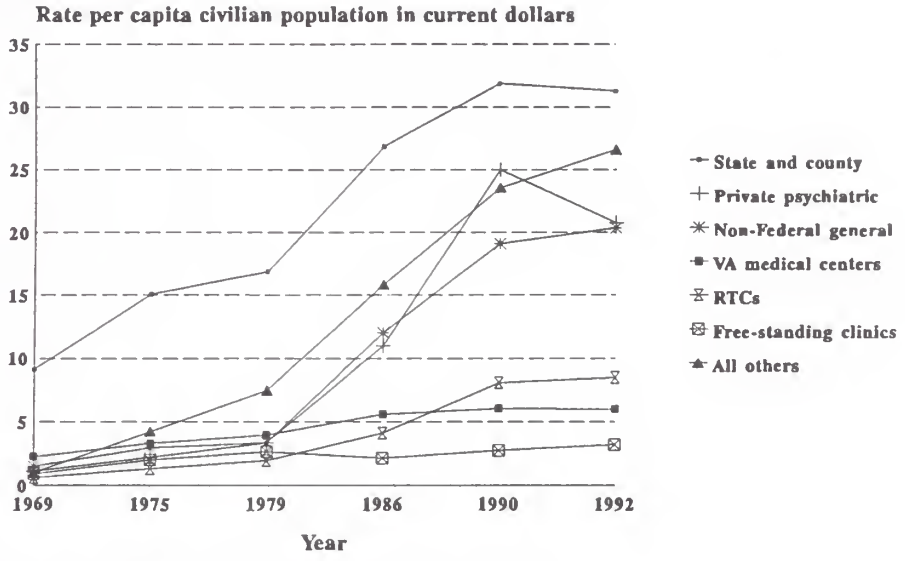
Figure 7.10. Annual expenditures in current and constant (1969=100), dollars, by mental health organization, United States: Selected years, 1969-1992



Although all of the specific organization types registered increases in current dollar expenditures between 1969 and 1992 (figure 7.11), when measured in constant dollars, State mental hospitals, VA medical centers, and freestanding psychiatric outpatient clinics actually lost purchasing power during this period, while all of the other organization types showed gains (tables 7.9a and 7.9b). As a result, the proportionate share of total expenditures changed significantly between 1969 and 1992 for some of the organization types. For example, State and county mental hospitals and VA medical centers comprised only 27 and 5 percent of total expenditures, respectively, in 1992 compared to 55 and 14 percent, respectively, in 1969; while private psychiatric hospitals, separate psychiatric services of non-Federal general hospitals and "all other organizations," combined with CMHCs,

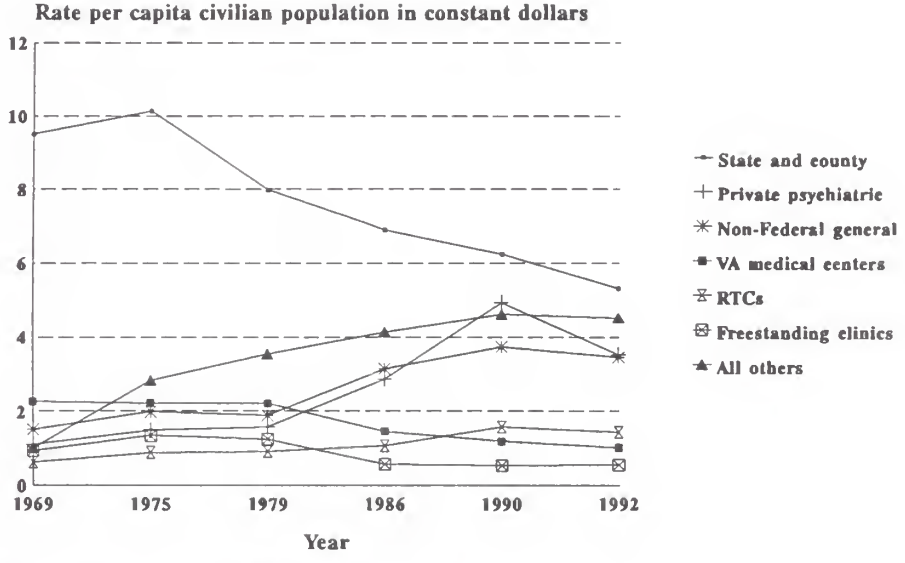
comprised 18, 17, and 23 percent, respectively, of the 1992 total expenditures compared to 7,9, and 6 percent, respectively, in 1969 (tables 7.9a and 7.9b).

Figure 7.11. Rate of current dollar expenditures per capita, by type of mental health organization, United States: Selected years 1969-1992



*Includes Federally-funded community mental health centers in 1969, 1975, and 1979

Figure 7.12. Rate of constant (1969=100) dollar expenditures per capita, by type of mental health organization, United States: Selected years, 1969-1992



*Includes Federally funded mental health centers in 1969, 1975, and 1979

Trends in per capita expenditures, i.e., the amount of expenditures per person in the civilian population of the United States, followed patterns similar to those noted above for the absolute expenditures among the various types of mental health organizations between 1969 and 1992. All of the organization types showed increases of varying degrees in current dollar per capita expenditures during this period, primarily as a result of the inflationary trend (table 7.9a and figure 7.11). However, when expressed in constant dollars, per capita expenditures were seen to have decreased for State and county mental hospitals, VA medical centers, and freestanding psychiatric outpatient clinics, while those for the remaining organizations increased, but at a considerably smaller rate than current dollar per capita expenditures (table 7.9b and figure 7.12).

Revenues by Source

In 1992, revenues collected by mental health organizations in the United States totalled $25.5 billion, up from $22.8 billion received in 1990. Of the 1992 total revenues, 40 percent came from State mental health agencies or other State government funds; 17 percent from client fees; 31 percent from Federal government sources (including all Medicare and Medicaid); 8 percent from local governments and 4 percent from all other sources. This distribution of revenues by source for 1992 was somewhat different from that for 1990 revenues, in that there was a higher percentage of funding from Federal government sources (mostly attributed to Medicare and Medicaid increases) -- 31 percent compared to 25 percent in 1990, whereas funding from all other major sources were proportionately smaller in 1992 than in 1990.

Among the different organization types, the major revenue sources showed variation in 1992. As would be expected, State and county mental hospitals obtained most of their funding (74 percent) from State mental health agencies and other State government sources, and virtually all funding for VA medical centers came from the Federal government. Slightly over half of all funding for private psychiatric hospitals was obtained from client fees, with another 35 percent being equally shared by Medicare and Medicaid. State and local governments were the major contributors of funds for the remaining organization types (RTCs, freestanding psychiatric outpatient clinics, freestanding psychiatric partial care organizations, and multiservice mental health organizations) followed, in most cases, by Medicaid (table 7.10).

Policy Implications

In 1993, CMHS changed the name of its *Mental Health Statistical Note* series to *Data Highlights*. In addition, instead of presenting detailed and relatively long descriptive reports, the new reports were reduced in size, and generally presented not only descriptive data as in the past, but also gave interpretations of the trends and policy implications. Some excerpts from those publications are incorporated into the discussion below. The policy implications cover topics from each of the broad system foci of this chapter, namely, availability, volume of service, staffing, and financing. They can help policy-makers and legislators make decisions regarding the types and volume of mental health services to be included as benefits in health care reform legislation at all levels of Government, and can provide baseline data for years prior to the proliferating of managed care.

Number of Beds

A decline in the overall number of psychiatric inpatient beds shown in this report (table 7.2), marks a reversal of the increase in number of these beds between 1986 and 1990, which was primarily a result of the substantial increase in number of private psychiatric hospitals and non-Federal general hospital psychiatric inpatient services during the 1980's. This rapid expansion of these two inpatient loci appeared to have created a considerably larger capacity, which, in turn, has begun to generate mergers, consolidations, downsizing, and closings of some of these hospitals as evidenced by a leveling off and/or decrease in number of hospitals and in number of their psychiatric inpatient beds in 1992. Moreover, the 1992 data for State mental hospitals showed a continued decline in their year-end resident patients and number of inpatient beds as many State governments struggle to reduce their budgets by eliminating costly inpatient programs, stressing community care, and preventing admission to psychiatric beds

when possible. Another reason for the decrease in psychiatric inpatient beds may be the increased use of managed care and other cost saving mechanisms, including the substitution of less costly outpatient and partial care for inpatient care that will further reduce the length of hospital stay as businesses and insurance companies try to reduce the costs they pay for employee care. Thus, indications are that the number of psychiatric beds may continue to decline in the foreseeable future (Redick et al. 1994a).

Patient Care Episodes

Policy implications evident from the trend data on patient care episodes involve such issues as (1) the future role of State and county mental hospitals, (2) the balance between community-based and State and county mental hospital services, (3) the balance between inpatient and ambulatory services, and (4) the contracting by State mental health agencies for the provision of services through the private sector.

Should State and county mental hospitals be closed or expanded?--As the number of inpatient episodes in State and county mental hospitals has continued to decline (figure 7.7), policy makers are confronted with momentous decisions regarding these organizations. At the one extreme, some argue that these hospitals have contracted in size to such an extent that persons with severe mental illness are being denied admission, and therefore, downsizing is unwise. By contrast, others argue that all persons, regardless of the severity of their mental illness, can be cared for in the community and that the State and county mental hospitals should be phased out entirely. Confounding the options of the policy makers are economic pressures brought by communities and labor unions to keep the State and county mental hospitals open to increase their size.

What should be the balance between community-based and State and county mental hospital services? -- State mental health agencies favor the expansion of community-based services at the expense of State and county mental hospital services. In addition, Federal legislation promotes community-based services to the exclusion of State and county mental hospital services in the distribution of community mental health service block grant funds to the States. Furthermore, aftercare services have shifted from the State and county mental hospitals to community-based services between 1955 and 1992. Despite these facts, State and county mental hospitals still consumed over half of total expenditures by State mental health agencies in 1992.

What should be the role of inpatient and ambulatory services? -- The proper balance of inpatient and ambulatory services needs to be examined for treatment efficacy, as well as for cost-benefit. Although the percentage of outpatient episodes has increased substantially over the last 20-30 years, the proportion has remained almost the same since 1975. Decisions will have to be made whether or not ambulatory services should be increased at the expense of inpatient services.

Should inpatient services be contracted out? -- As an alternative to the provision of inpatient services in State and county mental hospitals, many States have contracted with private psychiatric hospitals and non-Federal general hospitals to provide these services. It could be argued, however, that if the State and county mental hospitals were restructured to provide more short-term care and rehabilitative services, they could potentially provide comparable services more cheaply than private psychiatric or general hospitals. Additional work is needed to examine the effects of civil service regulations and cost benefit on contracting out.

Staffing

Accompanying the increase in the number of mental health organizations and their caseloads during the 1970-92 period has been the increase in the number of FTE staff employed by these organizations. Most of this increase occurred among the professional patient care staff, notably in the number of psychologists, social workers, registered nurses, and other mental health professionals, in contrast to paraprofessional mental health workers (licensed practical nurses, aides and orderlies) and support staff (administrative, clerical, and maintenance staff). This can be attributed in large part to the expansion of community-based mental health care services during this

period, which has led to a greater emphasis on short-term inpatient, as well as outpatient and partial care services, with the primary goal of keeping clients functioning in their own communities.

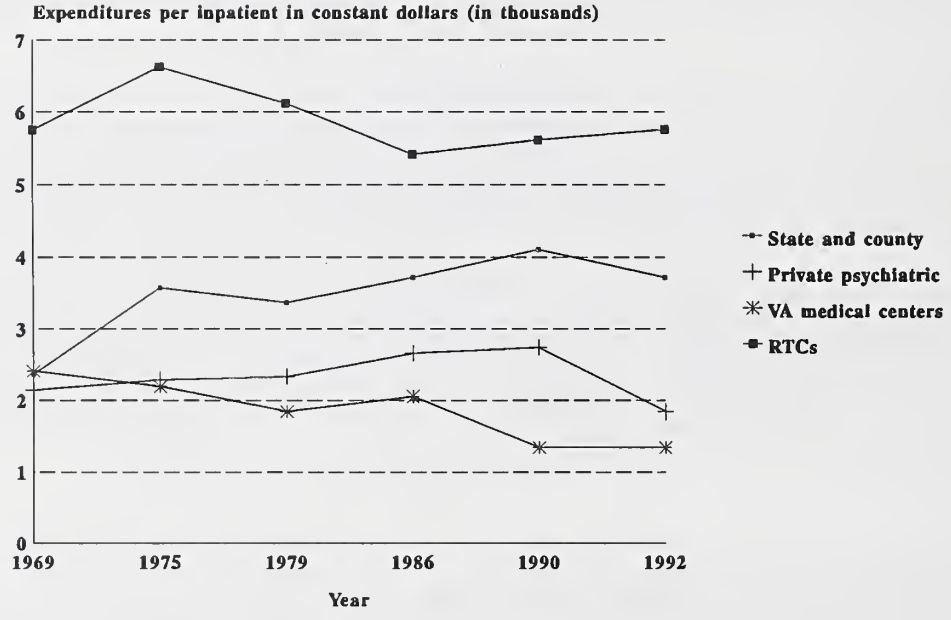
As the trends in the number and rates per population associated with inpatient care (e.g. decreases in resident patients and psychiatric beds) appear to be leveling off, and policies regarding the effectiveness of long-term inpatient care versus short-term inpatient and ambulatory care come under review, assessment must be given to the future human resource needs of mental health organizations, particularly as to whether the supply of paraprofessional and professional mental health care workers needs to be augmented or selectively reduced. Consideration also needs to be given to the substitutability of staff disciplines in certain situations (e.g. psychologists for psychiatrists; psychiatric social workers for psychologists).

Expenditures

With the advent of health care reform, much interest has developed about the role of inflation in the increase of expenditures by mental health organizations. Using 1969 as the base year, figures 7.11 and 7.12 show expenditures per capita by organization type in actual (current dollars and in dollars adjusted for inflation by the medical care component of the consumer price index (constant dollars).

A recent report (Witkin et al. 1994) compared various expenditure indices for four types of mental health organizations (State and county mental hospitals, private psychiatric hospitals, RTCs, and VA organizations). These organizations were chosen because (1) they primarily provide inpatient and/or residential treatment services, rather than ambulatory services, such as outpatient or partial care services; (2) the definition of these organization types has not changed over time; and (3) a measure of expenditures per unit of care, i.e. number of persons under care throughout the year (patient care episodes), is readily calculated (figure 7.13).

Figure 7.13. Expenditures per inpatient, in constant (1969=100) dollars in selected mental health organizations: United States, selected years 1969-1992



Conclusions are as follows: Since both the number of private psychiatric hospitals and the expenditures they incurred increased dramatically between 1969 and 1992, these hospitals showed gains in absolute dollar amounts and in dollar amounts per capita, even if the expenditures are expressed in constant dollars (figures 7.11 and

7.12). To a lesser extent, the same was true of RTCs. Although both VA medical centers and State and county mental hospitals showed increases in expenditures as measured in current dollars, these organizations showed net decreases if measured in constant dollars. Their inpatient populations also decreased during this period.

However, if expenditures per inpatient under care are examined, the reverse is true. The per patient expenditures for State and county mental hospitals increased between 1969 and 1992, even if the results are stated in constant dollars (figure 7.13). The inpatient population was decreasing at a much faster rate than the expenditures. Several factors contributed to the slower decrease in expenditures than in inpatients under care, including the successful opposition of labor unions and communities to the downsizing of hospitals, and rulings by the courts that required State and county mental hospitals to show increases in their staff to patient ratios in order to be accredited. However, within VA medical centers, private psychiatric hospitals, and RTCs, the number of inpatients under care tended to outpace the expenditures, and the expenditures per inpatient under care in these organizations tended to decrease over time, despite the large increases in dollar amount of expenditures, both in current and constant dollars.

Mental Health Services Data by State

In conjunction with the preparation of national data for this chapter, CMHS has tabulated the Inventory data by State. In recent years, these State data have become increasingly important for managers of State mental health agencies, enabling them to compare their program statistics with those of other States and with national totals. In addition, State legislators, budget officers, and planners of mental health services frequently request program administrators to furnish comparable statistical information from other States. Although State populations, programs, services, and funding patterns differ somewhat, State mental health program directors have usually identified enough similarities between their State and one or several others to make statistical comparisons. Among the most important factors in selecting other States for comparison is the need for States to have similarly organized services, as well as somewhat similar populations. Geographical proximity may also be a chief factor.

The table and five charts presented in this section include public and private mental health organizations within a State, and are not limited to organizations that are operated and/or funded by the State mental health agency. Table 7.11 gives the number of mental health organizations, by type, for the United States and for each State, for the years 1986, 1990, and 1992. Companion tables also report the number of organizations, by type, in each State that provide inpatient services (table 7.11a), outpatient services (table 7.11b) and partial care services (table 7.11c). Each of the charts present 1990 data for all mental health organizations within each State, as follows:

- Total psychiatric inpatient and residential treatment beds per 100,000 civilian population (figure 7.14).
- Number of inpatient and residential treatment additions per 100,000 civilian population (figure 7.15).
- Number of outpatient additions per 100,000 civilian population (figure 7.16).
- Number of partial care additions per 100,000 civilian population (figure 7.17).
- Current dollar expenditures per capita civilian population (figure 7.18).

1992 data, similar to those presented in the figures, are available in unpublished form from CMHS. Moreover, comparative State data for 1983, 1986, and 1988 can be found in *Mental Health, United States, 1992,* and for 1986, 1988, and 1990 in *Mental Health, United States, 1994.*

Figure 7.14. Total psychiatric inpatient and residential treatment beds per 100,000 civilian population in mental health organizations, by State: United States, 1992

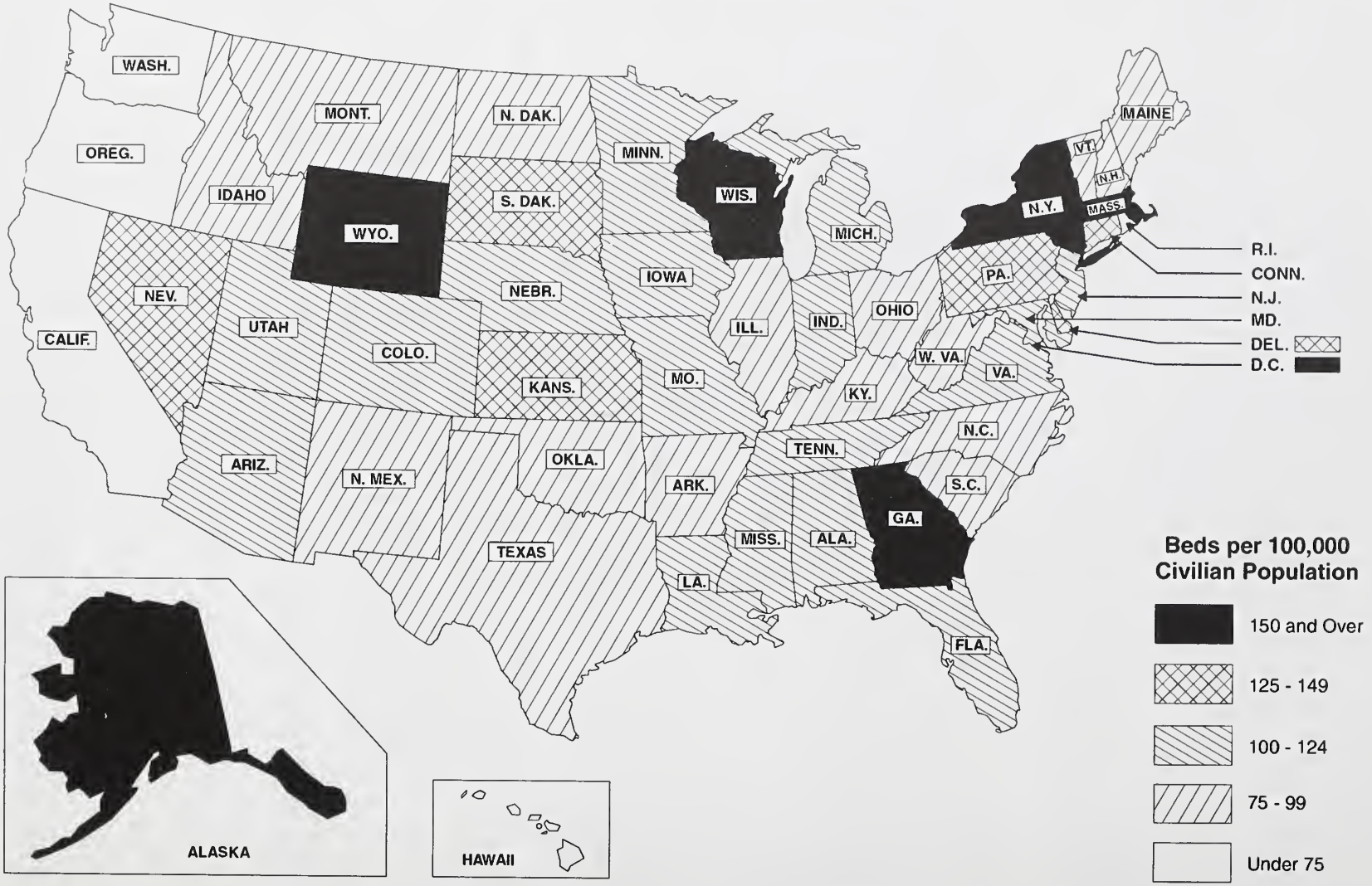


Figure 7.15. Number of inpatient and residential treatment additions per 100,000 civilian population to mental health organizations, by State: United States, 1992

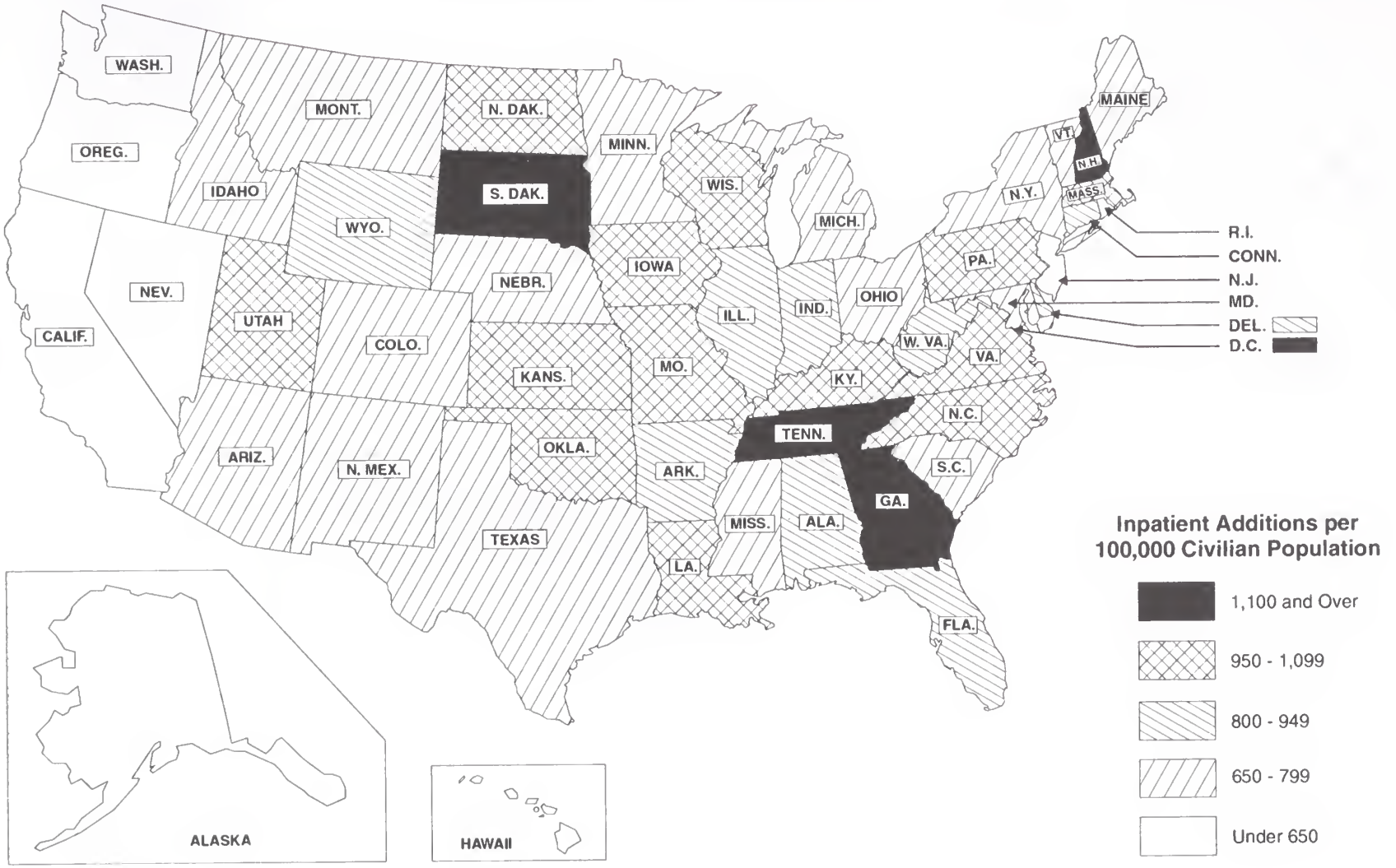


Figure 7.16. Number of outpatient additions per 100,000 civilian population to mental health organizations, by State: United States, 1992

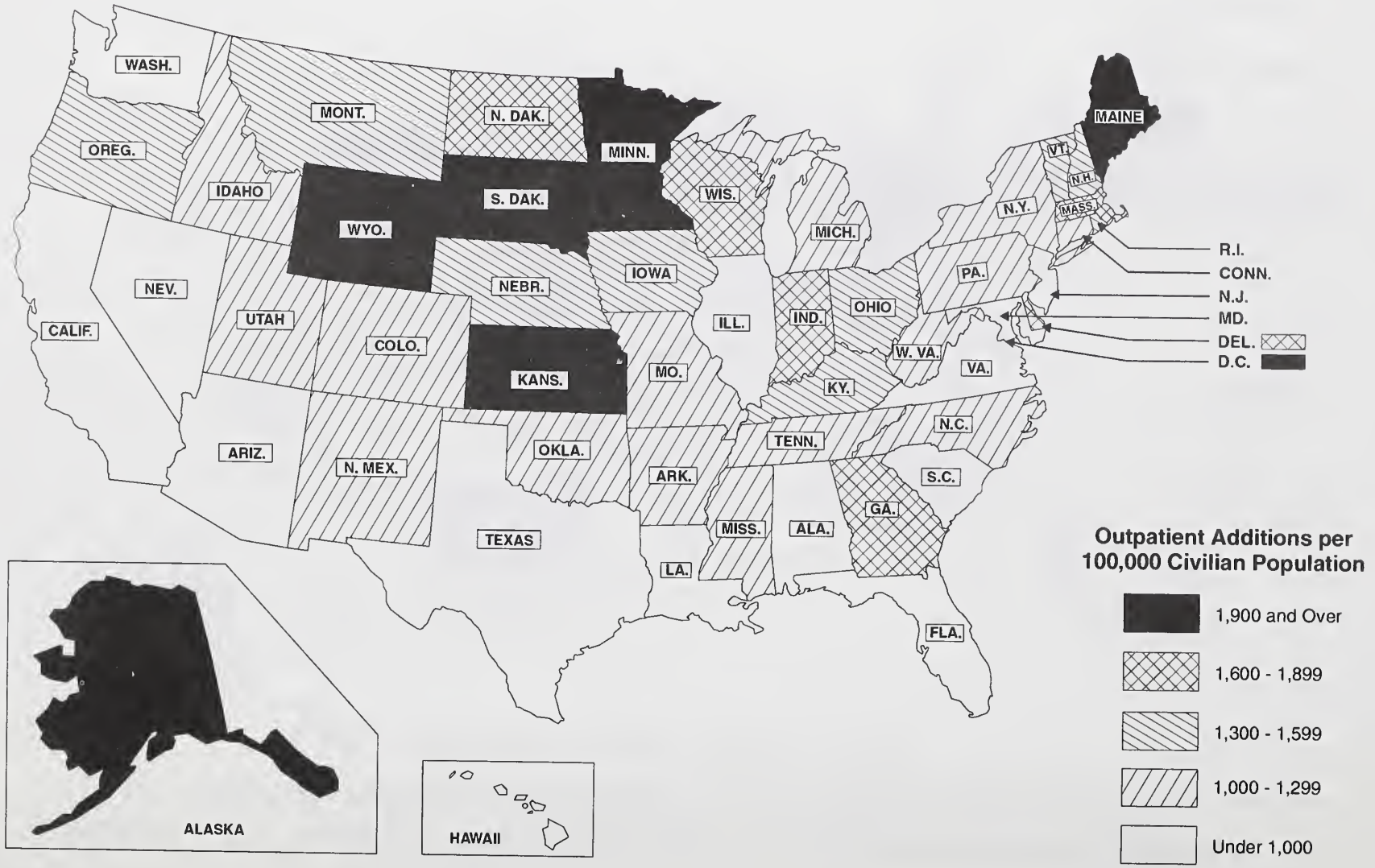


Figure 7.17. Number of partial care additions per 100,000 civilian population to mental health organizations, by State: United States, 1992

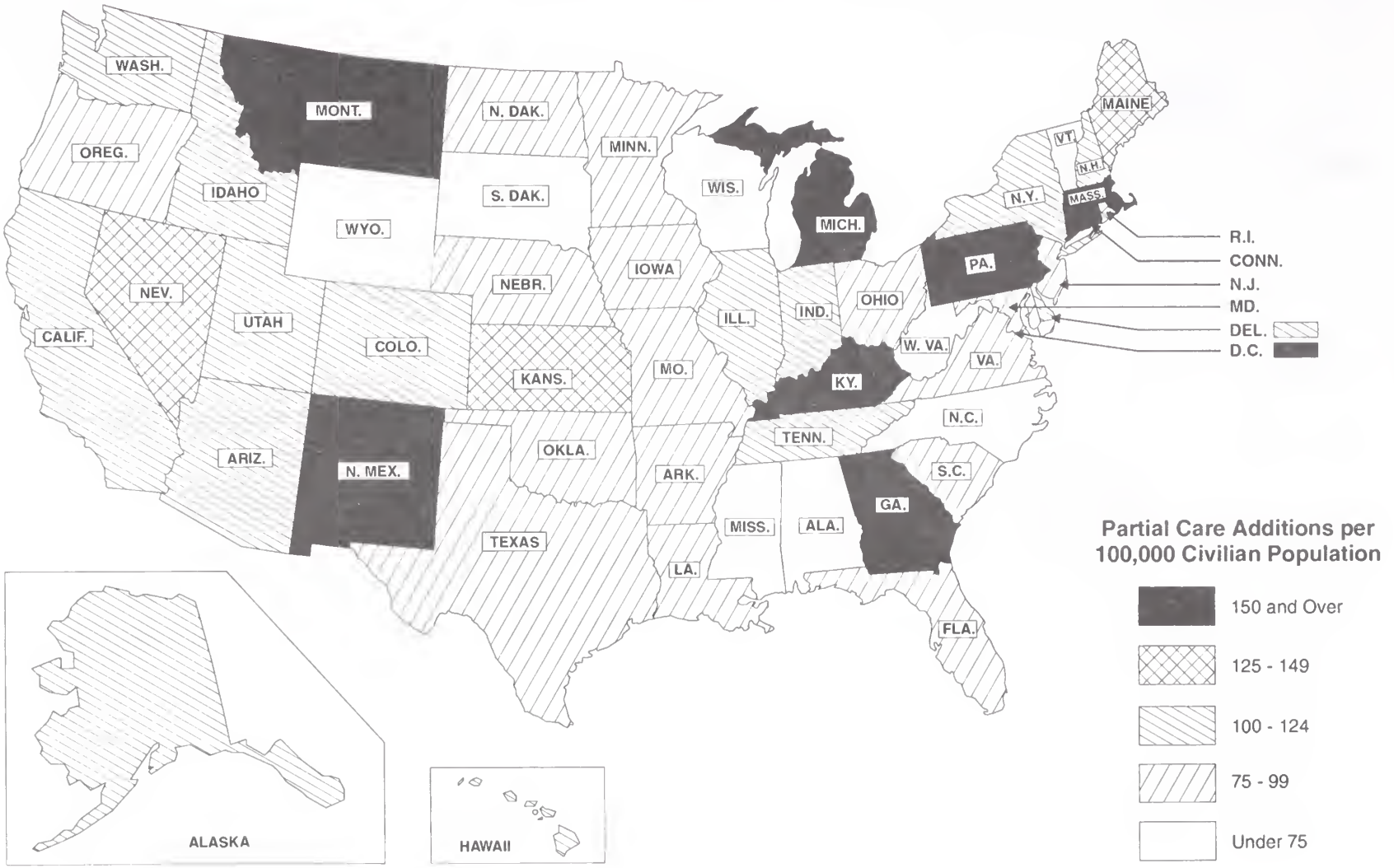


Figure 7.18. Current dollar expenditures per capita civilian population for mental health organizations, by State: United States, 1992

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Table 7.1. Number and percent distribution of mental health organizations, by type of service and type of organization: United States, selected years, 1970-92[1]

Type of organization	1970	1976	1980	1986	1990	1992
			Number of mental health organizations			
All organizations	3,005	3,480	3,727	4,747	5,284	5,498
State and county mental hospitals	310	303	280	285	273	273
Private psychiatric hospitals	150	182	184	314	462	475
Non-Federal general hospitals with separate psychiatric services	797	870	923	1,351	1,674	1,616
VA medical centers[2]	115	126	136	139	141	162
Federally funded community mental health centers	196	517	691	-	-	-
Residential treatment centers for emotionally disturbed children	261	331	368	437	501	497
Freestanding psychiatric outpatient clinics	1,109	1,076	1,053	773	743	862
All other organizations[3]	67	75	92	1,448	1,490	1,613
			Number with inpatient services			
All organizations	1,734	2,273	2,526	3,039	3,430	3,415
State and county mental hospitals	310	303	280	285	273	273
Private psychiatric hospitals	150	182	184	314	462	475
Non-Federal general hospitals with separate psychiatric services	664	791	843	1,287	1,571	1,517
VA medical centers[2]	110	112	121	124	130	133
Federally funded community mental health centers	196	517	691	-	-	-
Residential treatment centers for emotionally disturbed children	261	331	368	437	501	497
All other organizations[3]	43	37	39	592	493	520
			Number with outpatient services			
All organizations	2,156	2,318	2,431	2,946	3,189	3,390
State and county mental hospitals	195	147	100	83	84	75
Private psychiatric hospitals	100	60	54	114	176	198
Non-Federal general hospitals with separate psychiatric services	376	303	299	497	633	618
VA medical centers[2]	100	113	127	137	141	161
Federally funded community mental health centers	196	517	691	-	-	-
Residential treatment centers for emotionally disturbed children	48	57	68	99	163	167
Freestanding psychiatric outpatient clinics	1,109	1,076	1,053	773	743	862
All other organizations[3]	32	45	39	1,243	1,249	1,309
			Number with partial care services			
All organizations	778	1,447	1,648	1,943	2,430	2,548
State and county mental hospital	113	118	83	57	56	47
Private psychiatric hospitals	74	77	68	102	313	381
Non-Federal general hospitals with separate psychiatric services	166	176	165	281	418	423
VA medical centers[2]	48	69	67	63	71	68
Federally funded community mental health centers	196	517	691	-	-	-
Residential treatment centers for emotionally disturbed children	44	106	104	123	199	195
Freestanding psychiatric outpatient clinics	82	314	381	-	-	-
All other organizations[3]	55	70	89	1,317	1,373	1,434

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]Some organizations were reclassified as a result of changes in reporting procedures and definitions. For the 1979-80 comparable data were not available for certain organization types and data for either an earlier or a later period were substituted. These factors influence the comparability of 1980, 1986, 1990, and 1992 data from those of earlier years. For details, see text and the appendix.

[2]Includes Department of Veterans Affairs (formerly Veterans Administration) (VA) neuropsychiatric hospitals, VA general hospital psychiatric services, and VA psychiatric outpatient clinics.

[3]Includes freestanding psychiatric partial care organizations and multiservice mental health organizations. Multiservice mental health organizations were redefined in 1984. For details, see text and appendix.

Table 7.2. Number, percent distribution and rate[1] of inpatient and residential treatment beds, by type of mental health organization: United States, selected years, 1970-1992[2]

Type of organization	1970	1976	1980	1986	1990	1992
			Number of inpatient beds			
All organizations	524,878	338,963	274,713	267,613	272,253	270,867
State and county mental hospitals	413,066	222,202	156,482	119,033	98,789	93,058
Private psychiatric hospitals	4,295	16,091	17,157	30,201	44,871	43,684
Non-Federal general hospitals with separate psychiatric services	22,394	28,706	29,384	45,808	53,479	52,059
VA medical centers[3]	50,688	35,913	33,796	26,874	21,712	22,466
Federally funded community mental health centers	8,108	17,029	16,264	-	-	-
Residential treatment centers for emotionally disturbed children	15,129	18,029	20,197	24,547	29,756	30,089
All other organizations[4]	1,198	993	1,433	21,150	23,646	29,511
			Percent distribution of inpatient beds			
All organizations	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals	78.7	65.6	57.0	44.5	36.3	34.4
Private psychiatrie hospitals	2.7	4.7	6.6	11.3	16.5	16.1
Non-Federal general hospitals with separate psychiatric services	4.3	8.5	10.7	17.1	19.6	19.2
VA medical centers[3]	9.7	10.6	12.3	10.0	8.0	8.3
Federally funded community mental health centers	1.5	5.0	5.5	-	-	-
Residential treatment centers for emotionally disturbed children	2.9	5.3	7.4	9.2	10.9	11.1
All other organizations[4]	0.2	0.3	0.5	7.9	8.7	10.9
			Inpatient beds per 100,000 civilian population[1]			
All organizations	263.6	160.3	124.3	111.7	111.6	107.5
State and county mental hospitals	207.4	105.1	70.2	49.7	40.5	36.9
Private psychiatric hospitals	7.2	7.6	7.7	12.6	18.4	17.3
Non-Federal general hospitals with separate psychiatric services	11.2	13.6	13.7	19.1	21.9	20.7
VA medical centers[3]	25.5	17.0	15.7	11.2	8.9	8.9
Federally funded community mental health centers	4.1	8.0	7.3	-	-	-
Residential treatment centers for emotionally disturbed children	7.6	8.5	9.1	10.3	12.2	11.9
All other organizations[4]	0.6	0.5	0.6	8.8	9.7	11.7

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for the respective years.

Footnotes 2-4 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.3. Number, percent distribution and rate[1] of inpatient and residential treatment additions, by type of mental health organization: United States, selected years, 1969-92[2]

Type of organization	1969	1975	1979	1986	1990	1992
			Number of inpatient additions			
All organizations	1,282,698	1,556,978	1,541,659	1,819,189	2,035,245	2,092,062
State and county mental hospitals	486,661	433,529	383,323	332,884	276,231	275,382
Private psychiatric hospitals	92,056	125,529	140,831	234,663	406,522	469,827
Non-Federal general hospitals with psychiatric services	478,000	543,731	551,190	849,306	959,893	951,121
VA medical centers[3]	135,217	180,701	180,416	179,964	198,111	180,529
Federally funded community mental health centers	59,730	236,226	246,409	-	-	-
Residential treatment centers for emotionally disturbed children	7,596	12,022	15,453	24,511	41,588	36,388
All other organizations[4]	23,438	25,240	24,037	197,861	152,900	178,815
			Percent distribution of inpatient additions			
All organizations	100.0	100.0	100.0	100.0	100.0%	100.0
State and county mental hospitals	37.9	27.8	24.8	18.3	13.6	13.2
Private psychiatric hospitals	7.2	8.1	9.1	12.9	20.0	22.5
Non-Federal general hospitals with psychiatric services	37.3	34.9	35.8	46.7	47.2	45.5
VA medical centers[3]	10.5	11.6	11.7	9.9	9.7	8.6
Federally funded community mental health centers	4.7	15.2	16.0	-	-	-
Residential treatment centers for emotionally disturbed children	0.6	0.8	1.0	1.3	2.0	1.7
All other organizations[4]	1.8	1.6	1.6	10.9	7.5	8.5
			Inpatient additions per 100,000 civilian population[1]			
All organizations	644.2	736.5	704.2	759.9	833.7	830.1
State and county mental hospitals	244.4	205.1	172.0	139.1	113.2	109.3
Private psychiatric hospitals	46.2	59.4	63.2	98.0	166.5	186.4
Non-Federal general hospitals with separate psychiatric services	240.1	257.2	256.7	354.8	393.2	377.4
VA medical centers[3]	67.9	85.5	84.0	75.1	81.2	71.6
Federally funded community mental health centers	30.0	111.7	110.6	-	-	-
Residential treatment centers for emotionally disturbed children	3.8	5.7	6.9	10.2	17.0	14.4
All other organizations[4]	11.8	11.9	10.8	82.7	62.6	70.9

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for the respective years.

Footnotes 2-4 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.4. Number, percent distribution, and rate[1] of inpatient and residential treatment residents, by type of mental health organization: United States, selected years, 1969-92[2]

Type of organization	1969	1975	1979	1986	1990	1992
			Number of inpatients at end of year			
All organizations	471,451	284,158	230,216	237,845	226,953	214,714
State and county mental hospitals	369,969	193,436	140,355	111,135	90,572	83,180
Private psychiatric hospitals	10,963	11,576	12,921	24,591	32,268	24,053
Non-Federal general hospitals with psychiatric services	17,808	18,851	18,753	34,474	38,327	35,611
VA medical centers[3]	51,696	31,850	28,693	24,322	17,233	18,531
Federally funded community mental health centers	5,270	10,818	10,112	-	-	-
Residential treatment centers for emotionally disturbed children	13,489	16,307	18,276	23,171	27,785	27,751
All other organizations[4]	2,256	1,320	1,076	20,152	20,768	25,588
			Percent distribution of inpatients			
All organizations	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals	78.4	68.1	61.0	46.8	39.9	38.8
Private psychiatric hospitals	2.3	4.1	5.6	10.3	14.2	11.2
Non-Federal general hospitals with psychiatric services	3.8	6.6	8.2	14.5	16.9	16.6
VA medical centers[3]	11.0	11.2	12.5	10.2	7.6	8.6
Federally funded community mental health centers	1.1	3.8	4.4	-	-	-
Residential treatment centers for emotionally disturbed children	2.9	5.7	7.9	9.7	12.2	12.9
All other organizations[4]	0.5	0.5	0.4	8.5	9.2	11.9
			Inpatients per 100,000 civilian population[1]			
All organizations	236.8	134.4	103.9	99.6	93.0	85.2
State and county mental hospitals	185.8	91.5	63.0	46.5	37.1	33.0
Private psychiatric hospitals	5.5	5.5	5.8	10.3	13.2	9.5
Non-Federal general hospitals with separate psychiatric services	8.9	8.9	8.6	14.4	15.7	14.1
VA medical centers[3]	26.0	15.1	13.3	10.2	7.1	7.4
Federally funded community mental health centers	2.7	5.1	4.5	-	-	-
Residential treatment centers for emotionally disturbed children	6.8	7.7	8.2	9.7	11.4	11.0
All other organizations[4]	1.1	0.6	0.5	8.5	8.5	10.2

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for the respective years.

Footnotes 2-4 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.5. Number, percent distribution, and rate[1] of outpatient additions, by type of mental health organization: United States, selected years, 1969-92[2]

Type of organization	1969	1975	1979	1986	1990	1992
			Number of outpatient additions			
All organizations	1,146,612	2,289,779	2,634,727	2,766,518	3,004,975	2,882,044
State and county mental hospitals	164,232	146,078	81,919	62,212	42,831	45,527
Private psychiatric hospitals	25,540	32,879	30,004	123,355	121,235	140,824
Non-Federal general hospitals with psychiatric services	170,558	254,665	224,284	493,801	604,897	429,160
VA medical centers[3]	16,790	93,935	120,243	125,280	164,143	144,591
Federally funded community mental health centers	176,659	784,638	1,222,305	-	-	-
Residential treatment centers for emotionally disturbed children	7,920	19,784	19,653	61,855	86,108	112,667
Freestanding psychiatric outpatient clinics	538,426	870,649	825,046	390,630	462,147	464,499
All other organizations[4]	46,487	87,151	111,273	1,509,385	1,523,614	1,544,776
			Percent distribution of outpatient additions			
All organizations	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals	14.3	6.4	3.1	2.2	1.4	1.6
Private psychiatric hospitals	2.2	1.4	1.1	4.5	4.0	4.9
Non-Federal general hospitals with psychiatric services	14.9	11.1	8.5	17.8	20.1	14.9
VA medical centers[3]	1.5	4.1	4.6	4.5	5.5	5.0
Federally funded community mental health centers	15.4	34.3	46.5	-	-	-
Residential treatment centers for emotionally disturbed children	0.7	0.9	0.7	2.2	2.9	3.9
Freestanding psychiatric outpatient clinics	47.0	38.0	31.3	14.1	15.4	16.1
All other organizations[4]	4.0	3.8	4.2	54.6	50.7	53.6
			Outpatient additions per 100,000 civilian population[1]			
All organizations	575.9	1,083.2	1,188.4	1,155.7	1,230.9	1,180.6
State and county mental hospitals	82.5	69.1	36.8	26.0	17.5	18.6
Private psychiatric hospitals	12.8	15.6	13.5	51.5	49.7	57.7
Non-Federal general hospitals with separate psychiatric services	85.7	120.5	104.5	206.3	247.8	175.8
VA medical centers[3]	8.4	44.4	56.0	52.3	67.2	59.2
Federally funded community mental health centers	88.7	371.2	548.6	-	-	-
Residential treatment centers for emotionally disturbed children	4.0	9.4	8.8	25.8	35.3	46.2
Freestanding psychiatric outpatient clinics	270.4	411.8	370.3	163.2	189.3	190.3
All other organizations[4]	23.4	41.2	49.9	630.6	624.1	632.8

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for the respective years.

Footnotes 2-4 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.6. Number, percent distribution, and rate[1] of partial care additions, by type of mental health organization: United States, selected years, 1969-92[2]

Type of organization	1969	1975	1979	1986	1990	1992
			Number of partial care additions			
All organizations	55,486	163,326	172,331	188,819	293,498	282,393
State and county mental hospitals	10,505	14,205	9,808	5,774	5,380	4,082
Private psychiatric hospitals	2,872	3,165	3,467	8,820	41,929	65,345
Non-Federal general hospitals with separate psychiatric services	18,094	14,216	12,724	39,159	53,670	50,436
VA medical centers[3]	3,500	7,788	6,978	7,309	19,478	14,391
Federally funded community mental health centers	13,011	94,092	98,332	-	-	-
Residential treatment centers for emotionally disturbed children	671	3,431	2,519	5,489	13,395	8,464
Freestanding psychiatric outpatient clinics	4,387	21,928	29,587	-	-	-
All other organizations[4]	2,446	4,501	8,916	122,268	159,646	139,675
			Percent distribution of partial care additions			
All organizations	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals	18.9	8.7	5.7	3.1	1.8	1.4
Private psychiatric hospitals	5.2	1.9	2.0	4.7	14.3	23.1
Non-Federal general hospitals with separate psychiatric services	32.6	8.7	7.4	20.7	18.3	17.9
VA medical centers[3]	6.3	4.8	4.0	3.9	6.6	5.1
Federally funded community mental health centers	23.5	57.6	57.0	-	-	-
Residential treatment centers for emotionally disturbed children	1.2	2.1	1.5	2.9	4.6	3.0
Freestanding psychiatric outpatient clinics	7.9	13.4	17.2	-	-	-
All other organizations[4]	4.4	2.8	5.2	64.8	54.4	49.5
			Partial care additions per 100,000 civilian population[1]			
All organizations	27.8	77.2	77.6	79.0	120.3	115.8
State and county mental hospitals	5.3	6.7	4.4	2.4	2.2	1.7
Private psychiatric hospitals	1.4	1.5	1.6	3.7	17.2	26.8
Non-Federal general hospitals with separate psychiatric services	9.1	6.7	5.9	16.4	22.0	20.7
VA medical centers[3]	1.8	3.7	3.2	3.1	8.0	5.9
Federally funded community mental health centers	6.5	44.5	44.1	-	-	-
Residential treatment centers for emotionally disturbed children	0.3	1.6	1.1	2.3	5.5	3.5
Freestanding psychiatric outpatient clinics	2.2	10.4	13.3	-	-	-
All other organizations[4]	1.2	2.1	4.0	51.1	65.4	57.2

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for the respective years.

Footnotes 2-4 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.7. Number, percent distribution, and rate of inpatient, outpatient, and partial care episodes in mental health organizations: United States (excluding territories), selected years 1955 through 1992

Year	Total episodes	Inpatient care episodes	Outpatient care episodes	Partial care episodes
		Number		
1992	8,824,701	2,322,374	5,958,748	543,559
1990	8,620,628	2,266,022	5,810,405	544,201
1986	7,885,618	2,055,571	5,451,538	378,509
1983	7,194,038	1,860,613	5,007,928	325,497
1975	6,857,597	1,817,108	4,810,923	229,566
1971	4,190,913	1,755,816	2,316,754	118,343
1969	3,682,454	1,710,372	1,894,451	77,631
1965	2,636,525	1,565,525	1,071,000	-
1955	1,675,352	1,296,352	379,000	-
		Episodes per 100,000 population		
1992	3,580	916	2,441	223
1990	3,491	917	2,354	220
1986	3,295	859	2,278	158
1983	3,084	799	2,146	139
1975	3,245	860	2,276	109
1971	2,052	860	1,134	58
1969	1,853	861	953	39
1965	1,376	817	559	-
1955	1,028	795	233	-
		Percent distribution		
1992	100.0	26.3	67.5	6.2
1990	100.0	26.3	67.4	6.3
1986	100.0	26.1	69.1	4.8
1983	100.0	25.9	69.6	4.5
1975	100.0	26.5	70.2	3.3
1971	100.0	41.9	55.3	2.8
1969	100.0	46.5	51.4	2.1
1965	100.0	59.4	40.6	-
1955	100.0	77.4	22.6	-

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

Table 7.8. Number and percent distribution of full-time equivalent staff[1] in all mental health organizations, by staff discipline: United States, selected years, 1972-92[2]

Staff discipline	1972	1978[2]	1986[2,3]	1990	1992
			Number of FTE staff[1]		
All staff	375,984	430,051	494,515	563,619	585,972
Patient care staff	241,265	292,699	346,630	415,719	432,866
Professional patient care staff	100,886	153,598	232,481	273,374	305,988
Psychiatrists	12,938	14,492	17,874	18,818	22,803
Other physicians	3,991	3,034	3,868	3,865	3,949
Psychologists[4]	9,443	16,501	20,210	22,825	25,000
Social workers	17,687	28,125	40,951	53,375	57,136
Registered nurses	31,110	42,399	66,180	77,635	78,588
Other mental health professionals (B.A. and above)	17,514	39,363	56,245	84,071	102,162
Physical health professionals and assistants	8,203	9,684	27,153	12,785	16,350
Other mental health workers (less than B.A.)	140,379	139,101	114,149	142,345	126,878
Administrative, clerical, and maintenance staff	134,719	137,352	147,885	147,900	153,106
			Percent distribution of FTE staff		
All staff	100.0	100.0	100.0	100.0	100.0
Patient care staff	64.2	68.1	70.1	73.8	73.9
Professional patient care staff	26.9	35.8	47.0	48.5	52.2
Psychiatrists	3.4	3.4	3.5	3.3	3.9
Other physicians	1.1	0.7	0.8	0.7	0.7
Psychologists[4]	2.5	3.8	4.1	4.0	4.3
Social workers	4.7	6.5	8.3	9.5	9.7
Registered nurses	8.3	9.9	13.4	13.8	13.4
Other mental health professionals (B.A. and above)	4.7	9.2	11.4	14.9	17.4
Physical health professionals and assistants	2.2	2.3	5.5	2.3	2.8
Other mental health workers (less than B.A.)	37.3	32.3	23.1	25.3	21.7
Administrative, clerical, and maintenance staff	35.8	31.9	29.9	26.2	26.1

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For 1986 some organizations had been reclassified as a result of changes in reporting procedures and definitions. For details, see text and technical appendix.

[3]Includes data for CMHCs in 1978. In 1986, 1990, and 1992, these staff are subsumed under other organization types. Data for CMHCs are not shown separately.

[4]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-90, it included only psychologists with an M.A. degree and above.

Table 7.8a. Number and percent distribution of full-time equivalent staff[1] in State and county mental hospitals, by staff discipline: United States, selected years, 1972-92[2]

Staff discipline	1972	1976	1978	1986	1990	1992
			Number of FTE staff[1]			
All staff	223,886	219,006	205,289	182,466	175,566	171,745
Patient care staff	138,307	141,127	131,187	119,073	114,198	110,874
Professional patient care staff	38,516	46,596	45,131	54,853	50,035	56,953
Psychiatrists	4,389	4,333	3,712	3,762	3,849	4,457
Other physicians	2,440	2,047	1,809	1,917	1,962	2,126
Psychologists[2]	2,484	3,039	3,149	3,412	3,324	3,620
Social workers	5,324	5,948	5,924	6,238	7,013	7,378
Registered nurses	13,353	15,098	14,859	19,425	20,848	21,119
Other mental health professionals (B.A. and above)	5,890	10,551	10,492	8,033	8,955	11,527
Physical health professionals and assistants	4,636	5,580	5,186	12,066	4,084	6,726
Other mental health workers (less than B.A.)	99,791	94,531	86,056	64,220	64,163	53,921
Administrative, clerical, and maintenance staff	85,579	77,879	74,102	63,393	61,368	60,871
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	61.8	64.4	63.9	65.3	65.0	64.6
Professional patient care staff	17.3	21.2	21.9	30.1	28.5	33.2
Psychiatrists	2.0	2.0	1.8	2.1	2.2	2.6
Other physicians	1.1	0.9	0.9	1.1	1.1	1.2
Psychologists[2]	1.1	1.4	1.5	1.9	1.9	2.1
Social workers	2.4	2.7	2.9	3.4	4.0	4.3
Registered nurses	6.0	6.9	7.2	10.6	11.9	12.4
Other mental health professionals (B.A. and above)	2.6	4.8	5.1	4.4	5.1	6.7
Physical health professionals and assistants	2.1	2.5	2.5	6.6	2.3	3.9
Other mental health workers (less than B.A.)	44.5	43.2	42.0	35.2	36.5	31.4
Administrative, clerical, and maintenance staff	38.2	35.6	36.1	34.7	35.0	35.4

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.8b. Number and percent distribution of full-time equivalent staff[1] in private psychiatric hospitals, by staff discipline: United States, selected years, 1972-92

Staff discipline	1972	1976	1978	1986	1990	1992
			Number of FTE staff[1]			
All staff	21,504	27,655	29,972	58,912	75,392	77,251
Patient care staff	11,329	17,196	18,728	35,480	57,200	56,877
Professional patient care staff	5,735	9,879	11,419	27,246	45,669	44,206
Psychiatrists	1,067	1,369	1,285	1,554	1,582	2,081
Other physicians	101	162	185	141	316	147
Psychologists[2]	305	559	590	1,557	1,977	1,656
Social workers	418	784	920	2,893	4,044	4,587
Registered nurses	2,634	3,395	3,967	10,147	14,819	15,086
Other mental health professionals (B.A. and above)	857	2,794	3,644	7,478	17,358	15,303
Physical health professionals and assistants	353	816	828	3,476	5,573	5,346
Other mental health workers (less than B.A.)	5,594	7,317	7,309	8,234	11,531	12,671
Administrative, clerical, and maintenance staff	10,175	10,459	11,244	23,432	18,192	20,374
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	52.7	62.2	62.6	60.2	75.9	73.6
Professional patient care staff	26.6	35.8	38.2	46.2	60.6	57.2
Psychiatrists	5.0	5.0	4.3	2.6	2.1	2.7
Other physicians	0.5	0.6	0.6	0.2	0.4	0.2
Psychologists[2]	1.4	2.0	2.0	2.6	2.6	2.2
Social workers	1.9	2.8	3.1	4.9	5.4	5.9
Registered nurses	12.2	12.3	13.2	17.3	19.7	19.5
Other mental health professionals (B.A. and above)	4.0	10.1	12.2	12.7	23.0	19.8
Physical health professionals and assistants	1.6	3.0	2.8	5.9	7.4	6.9
Other mental health workers (less than B.A.)	26.1	26.4	24.4	14.0	15.3	16.4
Administrative, clerical, and maintenance staff	47.3	37.8	37.4	39.8	24.1	26.4

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.8c. Number and percent distribution of full-time equivalent staff[1] in the separate psychiatric services of non-Federal general hospitals, by staff discipline: United States, selected years, 1972-92

Staff discipline	1972	1976	1978	1986	1990	1992
			Number of FTE staff[1]			
All staff	30,982	39,621	40,908	70,187	80,625	81,819
Patient care staff	25,385	33,969	34,966	61,148	72,214	72,880
Professional patient care staff	15,565	21,231	22,401	50,233	57,019	58,544
Psychiatrists	3,394	3,933	3,583	6,009	6,500	6,160
Other physicians	452	180	237	671	585	353
Psychologists[2]	1,100	1,356	1,512	2,983	3,951	4,182
Social workers	1,904	2,515	2,552	5,634	7,241	7,985
Registered nurses	6,922	9,445	10,611	23,454	28,473	28,355
Other mental health professionals (B.A. and above)	1,519	3,394	3,583	7,658	9,643	10,812
Physical health professionals and assistants	274	408	323	3,824	626	697
Other mental health workers (less than B.A.)	10,270	12,738	12,565	10,915	15,195	14,336
Administrative, clerical, and maintenance staff	5,147	5,652	5,942	9,039	8,411	8,939
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	83.4	85.7	85.5	87.1	89.6	89.1
Professional patient care staff	50.3	53.5	54.8	71.6	70.8	71.6
Psychiatrists	11.0	9.9	8.8	8.6	8.1	7.5
Other physicians	1.5	0.5	0.6	1.0	0.7	0.4
Psychologists[2]	3.6	3.4	3.7	4.3	4.9	5.1
Social workers	6.1	6.3	6.2	8.0	9.0	9.8
Registered nurses	22.3	23.8	25.9	33.4	35.3	34.7
Other mental health professionals (B.A. and above)	4.9	8.6	8.8	10.9	12.0	13.2
Physical health professionals and assistants	0.9	1.0	0.8	5.4	0.8	0.9
Other mental health workers (less than B.A.)	33.1	32.2	30.7	15.6	18.8	17.5
Administrative, clerical, and maintenance staff	16.6	14.3	14.5	12.9	10.4	10.9

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.8d. Number and percent distribution of full-time equivalent staff[1] in VA medical centers, by staff discipline: United States, selected years, 1972-92

Staff discipline	1972	1976	1978	1986	1990	1992
			Number of FTE staff[1]			
All staff	42,152	39,963	40,785	33,376	29,741	24,345
Patient care staff	24,523	25,226	26,282	23,559	22,080	20,834
Professional patient care staff	12,315	13,129	13,954	17,782	14,619	16,274
Psychiatrists	902	1,320	1,471	2,245	2,103	3,403
Other physicians	626	504	531	555	464	486
Psychologists[2]	895	1,134	1,255	1,439	1,476	2,479
Social workers	1,098	1,412	1,620	1,680	1,855	2,244
Registered nurses	4,713	4,503	5,326	6,761	5,888	5,485
Other mental health professionals (B.A. and above)	1,497	1,812	1,748	1,423	1,322	1,266
Physical health professionals and assistants	2,584	2,444	2,003	3,679	1,511	911
Other mental health workers (less than B.A.)	12,208	12,097	12,328	5,777	7,461	4,560
Administrative, clerical, and maintenance staff	17,629	14,737	14,503	9,817	7,661	3,511
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	58.2	63.1	64.4	70.6	74.2	85.6
Professional patient care staff	29.2	32.8	34.2	53.3	49.2	66.8
Psychiatrists	2.1	3.3	3.6	6.7	7.1	14.0
Other physicians	1.5	1.3	1.3	1.7	1.6	2.0
Psychologists[2]	2.1	2.8	3.1	4.3	5.0	10.2
Social workers	2.6	3.5	4.0	5.0	6.2	9.2
Registered nurses	11.2	11.3	13.1	20.3	19.8	22.5
Other mental health professionals (B.A. and above)	3.6	4.5	4.3	4.3	4.4	5.2
Physical health professionals and assistants	6.1	6.1	4.8	11.0	5.1	3.7
Other mental health workers (less than B.A.)	29.0	30.3	30.2	17.3	25.0	18.8
Administrative, clerical, and maintenance staff	41.8	36.9	35.6	29.4	25.8	14.4

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.8e. Number and percent distribution of full-time equivalent staff[1] in residential treatment centers for emotionally disturbed children, by staff discipline: United States, selected years, 1972-92

Staff discipline	1972	1976	1978	1986	1990	1992
			Number of FTE staff[1]			
All staff	17,025	19,352	22,443	34,569	53,220	55,678
Patient care staff	11,299	13,824	16,464	25,146	40,969	42,801
Professional patient care staff	6,738	8,990	10,824	17,599	26,032	30,207
Psychiatrists	147	149	140	335	498	748
Other physicians	34	27	22	86	101	126
Psychologists[2]	354	434	497	911	1,492	1,641
Social workers	1,653	1,778	2,196	4,585	5,636	6,506
Registered nurses	244	301	324	746	1,238	1,367
Other mental health professionals (B.A. and above)	4,177	6,072	7,359	9,435	16,765	18,970
Physical health professionals and assistants	129	229	286	1,501	302	849
Other mental health workers (less than B.A.)	4,561	4,834	5,640	7,547	14,937	12,594
Administrative, clerical, and maintenance staff	5,726	5,528	5,979	9,423	12,251	12,877
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	66.4	71.4	73.3	72.7	77.0	76.9
Professional patient care staff	39.6	46.4	48.2	50.9	48.9	54.3
Psychiatrists	0.9	0.8	0.6	1.0	0.9	1.3
Other physicians	0.2	0.1	0.1	0.2	0.2	0.2
Psychologists[2]	2.1	2.2	2.2	2.6	2.8	3.0
Social workers	9.7	9.2	9.8	13.3	10.6	11.7
Registered nurses	1.4	1.6	1.4	2.2	2.3	2.5
Other mental health professionals (B.A. and above)	24.5	31.4	32.8	27.3	31.5	34.1
Physical health professionals and assistants	0.8	1.1	1.3	4.3	0.6	1.5
Other mental health workers (less than B.A.)	26.8	25.0	25.1	21.8	28.1	22.6
Administrative, clerical, and maintenance staff	33.6	28.6	26.7	27.3	23.0	23.1

Sources: Unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.8f. Number and percent distribution of full-time equivalent staff[1] in freestanding outpatient psychiatric clinics, by staff discipline: United States, selected years, 1972-92

Staff discipline	1972	1976	1978	1986	1990	1992
			Number of FTE staff[1]			
All staff	15,780	23,099	26,502	13,811	14,271	18,660
Patient care staff	11,157	16,706	18,945	9,202	10,016	13,177
Professional patient care staff	10,021	14,536	16,505	8,901	9,444	12,313
Psychiatrists	1,456	1,449	1,413	712	686	912
Other physicians	97	76	65	50	96	79
Psychologists[2]	2,498	3,704	4,115	1,860	1,913	2,567
Social workers	4,246	5,755	6,513	4,202	4,608	5,160
Registered nurses	522	830	882	292	316	488
Other mental health professionals (B.A. and above)	1,133	2,509	3,282	1,700	1,769	2,940
Physical health professionals and assistants	69	213	235	85	56	167
Other mental health workers (less than B.A.)	1,136	2,170	2,440	301	572	864
Administrative, clerical, and maintenance staff	4,623	6,393	7,557	4,609	4,255	5,483
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	70.7	72.3	71.4	66.7	70.2	70.6
Professional patient care staff	63.4	62.9	62.2	64.5	66.2	66.0
Psychiatrists	9.2	6.3	5.3	5.2	4.8	4.9
Other physicians	0.6	0.3	0.2	0.4	0.7	0.4
Psychologists[2]	15.8	16.0	15.5	13.5	13.4	13.8
Social workers	26.9	24.9	24.6	30.4	32.3	27.7
Registered nurses	3.3	3.6	3.3	2.1	2.2	2.6
Other mental health professionals (B.A. and above)	7.2	10.9	12.4	12.3	12.4	15.7
Physical health professionals and assistants	0.4	0.9	0.9	0.6	0.4	0.9
Other mental health workers (less than B.A.)	7.3	9.4	9.2	2.2	4.0	4.6
Administrative, clerical, and maintenance staff	29.3	27.7	28.6	33.3	29.8	29.4

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.8g. Number and percent distribution of full-time equivalent staff[1] in freestanding partial care and multiservice mental health organizations, by staff discipline: United States, selected years, 1972-92[2]

Staff discipline	1972	1976	1978	1986[2]	1990[2]	1992[2]
			Number of FTE staff[1]			
All staff	4,994	5,273	6,928	101,194	134,804	155,479
Patient care staff	3,674	3,708	4,916	73,022	99,042	114,672
Professional patient care staff	2,858	2,829	3,758	55,867	70,556	86,842
Psychiatrists	359	343	368	3,257	3,600	5,005
Other physicians	30	59	18	448	341	630
Psychologists[3]	313	361	450	8,048	8,692	8,785
Social workers	733	735	1,080	15,719	22,978	23,102
Registered nurses	436	409	473	5,355	6,053	6,636
Other mental health professionals (B.A. and above)	845	845	1,239	20,518	28,259	41,033
Physical health professionals and assistants	142	77	130	2,522	633	1,651
Other mental health workers (less than B.A.)	816	879	1,158	17,155	28,486	27,830
Administrative, clerical, and maintenance staff	1,319	1,565	2,012	28,172	35,762	40,807
			Percent distribution of FTE staff			
All staff	100.0	100.0	100.0	100.0	100.0	100.0
Patient care staff	73.5	70.3	71.0	72.2	73.5	73.8
Professional patient care staff	57.2	53.6	54.3	55.2	52.4	55.9
Psychiatrists	7.2	6.5	5.3	3.2	2.7	3.2
Other physicians	0.6	1.1	0.3	0.4	0.3	0.4
Psychologists[3]	6.3	6.8	6.5	8.0	6.4	5.6
Social workers	14.7	13.9	15.6	15.5	17.0	14.9
Registered nurses	8.7	7.8	6.8	5.3	4.5	4.3
Other mental health professionals (B.A. and above)	16.9	16.0	17.9	20.3	21.0	26.4
Physical health professionals and assistants	2.8	1.5	1.9	2.5	0.5	1.1
Other mental health workers (less than B.A.)	16.3	16.7	16.7	17.0	21.1	17.9
Administrative, clerical, and maintenance staff	26.5	29.7	29.0	27.8	26.5	26.2

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Analysis, Center for Mental Health Services.

[1]The computation of full-time equivalent staff is based on a 40-hour work week.

[2]For the most recent years shown, 1986-92 in this table, some organizations were reclassified as a result of changes in reporting procedures and definitions. For details, see text and technical appendix.

[3]For 1972-78, this category included all psychologists with a B.A. degree and above; for 1986-92, it included only psychologists with an M.A. degree and above.

Table 7.9a. Amount, percent distribution, and rate per capita[1] of expenditures in current dollars, by type of mental health organization: United States, selected years, 1969-92[2]

Type of organization	1969	1975	1979	1986	1990	1992
			Expenditures in thousands of dollars			
All organizations	$3,292,563	$6,564,312	$8,763,795	$18,457,741	$28,410,261	$29,765,202
State and county mental hospitals	1,814,101	3,185,049	3,756,754	6,325,844	7,774,482	7,970,163
Private psychiatric hospitals	220,026	466,720	743,037	2,629,009	6,101,063	5,301,940
Non-Federal general hospitals with psychiatric services	298,000	621,284	722,868	2,877,739	4,661,574	5,192,984
VA medical centers[3]	450,000	699,027	848,469	1,337,943	1,480,082	1,529,745
Federally funded community mental health centers	143,491	775,580	1,480,890	-	-	-
Residential treatment centers for emotionally disturbed children	122,711	278,950	436,246	977,616	1,969,283	2,167,324
Freestanding psychiatric outpatient clinics	185,517	421,557	588,690	518,069	670,918	821,346
All other organizations[4]	58,717	116,145	186,841	3,791,521	5,752,859	8,781,720
			Percent distribution of expenditures			
All organizations	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals	55.1	48.5	42.9	34.4	27.4	26.8
Private psychiatric hospitals	6.7	7.1	8.5	14.2	21.5	17.8
Non-Federal general hospitals with psychiatric services	9.0	9.5	8.2	15.6	16.4	17.4
VA medical centers[3]	13.7	10.6	9.7	7.2	5.2	5.1
Federally funded community mental health centers	4.4	11.8	16.9	-	-	-
Residential treatment centers for emotionally disturbed children	3.7	4.3	5.0	5.3	6.9	7.3
Freestanding psychiatric outpatient clinics	5.6	6.4	6.7	2.8	2.4	2.8
All other organizations[4]	1.8	1.8	2.1	20.5	20.2	22.8
			Expenditures per capita civilian population[1]			
All organizations	$16.53	$31.05	$39.61	$77.10	$116.39	$116.69
State and county mental hospitals	9.11	15.06	16.86	26.43	31.85	31.25
Private psychiatric hospitals	1.10	2.21	3.34	10.98	24.99	20.78
Non-Federal general hospitals with separate psychiatric services	1.50	2.94	3.37	12.02	19.10	20.36
VA medical centers[3]	2.26	3.31	3.95	5.59	6.06	6.00
Federally funded community mental health centers	0.72	3.67	6.65	-	-	-
Residential treatment centers for emotionally disturbed children	0.62	1.32	1.96	4.08	8.07	8.50
Freestanding psychiatric outpatient clinics	0.93	1.99	2.64	2.16	2.75	3.22
All other organizations[4]	0.29	0.55	0.84	15.84	23.57	26.58

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for each year.

[2-4]Footnotes 2-4 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.9b. Amount, percent distribution, and rate[1] per capital of expenditures in constant dollars (1969=100),[2] by type of mental health organization: United States, selected years, 1969-92[3]

Type of organization	1969	1975	1979	1986	1990	1992
			Expenditures in thousands of dollars			
All organizations	$3,292,563	$4,414,465	$4,145,598	$4,828,079	$5,566,274	$4.995,003
State and county mental hospitals	1,814,101	2,141,929	1,777,083	1,654,681	1,523,214	1,337.500
Private psychiatric hospitals	220,026	313,867	351,484	687,682	1,195,349	889,737
Non-Federal general hospitals with psychiatric services	298,000	417,810	341,943	752,744	913,318	871,452
VA medical centers[4]	450,000	470,092	401,357	349,972	289,985	256,712
Federally funded community mental health centers	143,491	521,574	700,516	-	-	-
Residential treatment centers for emotionally disturbed children	122,711	187,592	206,360	255,720	385,831	363,706
Freestanding psychiatric outpatient clinics	185,517	283,495	278,472	135,514	131,449	137,833
All other organizations[5]	58,717	78,106	88,383	991,766	1,127,128	1,138,063
			Percent distribution of expenditures			
All organizations	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals	55.1	48.5	42.9	34.3	27.4	26.8
Private psychiatric hospitals	6.7	7.1	8.5	14.2	21.5	17.8
Non-Federal general hospitals with psychiatric services	9.1	9.5	8.2	15.6	16.4	17.4
VA medical centers[4]	13.7	10.6	9.7	7.3	5.2	5.1
Federally funded community mental health centers	4.3	11.8	16.9	-	-	-
Residential treatment centers for emotionally disturbed children	3.7	4.3	5.0	5.3	6.9	7.3
Freestanding psychiatric outpatient clinics	5.6	6.4	6.7	2.8	2.4	2.8
All other organizations[5]	1.8	1.8	2.1	20.5	20.2	22.8
			Expenditures per capita civilian population[1]			
All organizations	$16.53	$20.88	$19.37	$20.15	$22.81	$19.83
State and county mental hospitals	9.11	10.13	7.98	6.90	6.24	5.31
Private psychiatric hospitals	1.10	1.48	1.58	2.87	4.90	3.53
Non-Federal general hospitals with separate psychiatric services	1.50	1.98	1.89	3.14	3.74	3.46
VA medical centers[4]	2.26	2.22	2.21	1.46	1.19	1.02
Federally funded community mental health centers	0.72	2.47	3.14	-	-	-
Residential treatment centers for emotionally disturbed children	0.62	0.89	0.92	1.07	1.58	1.44
Freestanding psychiatric outpatient clinics	0.93	1.34	1.25	0.57	0.54	0.55
All other organizations[5]	0.29	0.37	0.40	4.14	4.62	4.52

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]The population used in the calculation of these rates is the January 1 civilian population of the United States for each year.

[2]Based on the medical care component of the consumer price index (1969=100.0). Indices for other years are 1975 (148.7), 1979 (211.4), 1986 (382.3), 1988 (434.5), and 1992 (595.9).

[3-4]Footnotes 3-5 on this table correspond to footnotes 1-3 on table 7.1.

Table 7.10. Amount and percent of distribution of revenues in thousands of dollars, by type of mental health organization (excludes revenues from separate psychiatric services of non-Federal general hospitals): United States, 1986, 1990 and 1992

Source of revenue	Type of organization											
	All organizations [1]			State and county mental hospitals			Private psychiatric hospitals			VA medical centers [2]		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
Revenues in thousands of dollars												
Total revenue	$15,745,995	$22,848,903	$25,477,387	$6,361,429	$7,717,856	$8,096,881	$2,752,395	$5,320,520	$6,055,016	$1,337,658	$1,458,573	$1,537,624
State mental health agency funds (excluding Medicaid)	6,683,583	8,452,516	9,186,235	4,711,788	5,419,765	5,865,998	63,640	209,112	82,431	-	-	-
Other State government	879,549	1,368,393	984,689	272,272	517,856	109,644	69,475	56,653	51,174	-	-	-
Client fees received	2,428,831	4,036,745	4,124,589	99,079	107,147	121,227	1,850,668	3,217,037	3,234,789	-	-	-
Client fees that reverted to State	206,862	286,092	253,980	173,400	195,802	173,510	3,327	44,384	3,074	-	285	-
Medicaid (including Federal, State, and local share)	1,411,362	2,450,071	4,024,542	712,882	815,292	1,356,140	143,062	500,722	949,466	-	-	-
Medicare	78,013	1,049,936	1,628,259	195,709	367,950	297,957	222,950	575,587	1,192,043	-	-	-
Other Federal	1,628,520	2,136,007	2,308,521	21,906	52,004	37,725	86,733	320,091	361,132	1,337,522	1,458,273	1,537,455
Local government	1,233,466	1,978,838	2,150,403	101,792	159,412	106,184	61,641	93,589	94,650	-	-	-
Contract funds from other non-government organizations	113,423	138,836	183,112	865	16,997	1,166	36,370	15,716	34,618	-	-	-
All other sources[3]	682,386	951,369	633,057	71,736	65,631	27,330	214,529	287,629	51,637	136	15	169
Percent distribution of revenues												
Total revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
State mental health agency funds (excluding Medicaid)	42.4	37.0	36.1	74.1	70.2	72.5	2.3	3.9	1.4	-	-	-
Other State government	5.6	6.0	3.9	4.3	6.7	1.4	2.5	1.1	0.8	-	-	-
Client fees received	15.4	17.7	16.1	1.6	1.4	1.5	67.2	60.5	53.3	-	-	-
Client fees that reverted to State	1.3	1.2	1.0	2.7	2.5	2.1	0.1	0.8	0.1	-	0.0	-
Medicaid (including Federal, State, and local share)	9.0	10.7	15.8	11.2	10.6	16.7	5.2	9.4	15.7	-	-	-
Medicare	3.0	4.6	6.4	3.1	4.8	3.7	8.1	10.8	19.7	-	-	-
Other Federal	10.4	9.3	9.1	0.3	0.7	0.5	3.2	6.0	6.0	100.0	100.0	100.0
Local government	7.9	8.7	8.4	1.6	2.1	1.3	2.2	1.8	1.6	-	-	-
Contract funds from other non-government organizations	0.7	0.6	0.7	0.0	0.2	0.0	1.3	0.3	0.6	-	-	-
All other sources[3]	4.3	4.2	2.5	1.1	0.8	0.3	7.9	5.4	0.8	0.0	0.0	0.0

(Continued)

See footnotes at end of table.

Table 7.10. Amount and percent distribution of revenues in thousands of dollars, by type of mental health organization (excludes revenues from separate psychiatric services of non-Federal general hospitals): United States, 1986, 1990, and 1992 (continued)

Source of revenue	Type of organization											
	RTCs for emotionally disturbed children			Freestanding psychiatric partial care organizations			Freestanding psychiatric outpatient clinics			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
Revenues in thousands of dollars												
Total revenue	$968,138	$1,960,029	$2,152,681	$67,821	$82,849	$123,018	$516,984	$666,817	$820,239	$3,741,570	$5,642,159	$6,691,928
State mental health agency funds (excluding Medicaid)	82,088	291,459	357,706	12,665	23,539	29,052	140,167	165,593	162,502	1,673,235	2,343,048	2,688,546
Other State government	250,797	397,764	432,613	9,141	18,128	19,941	31,641	32,947	49,336	246,223	345,045	321,981
Client fees received	72,276	185,577	157,264	1,809	2,684	1,521	69,971	102,622	135,927	335,028	421,578	473,861
Client fees that reverted to State	3,804	7,038	32,205	3,132	11	1	6,000	3,868	7,534	17,199	34,704	37,656
Medicaid (including Federal, State, and local share)	36,709	152,299	238,469	6,563	7,250	15,712	55,799	81,765	151,015	456,347	892,743	1,313,740
Medicare	276	9,796	11,423	254	310	3,425	8,492	8,023	9,990	50,332	88,270	113,419
Other Federal	26,560	49,907	34,031	1,175	2,346	2,014	11,495	8,826	21,913	143,129	244,560	314,251
Local government	348,247	632,372	636,180	16,696	13,801	33,907	110,998	162,043	165,901	594,092	917,621	1,113,581
Contract funds from other non-government organizations	7,976	9,598	25,482	1,256	6,151	974	8,430	11,609	19,047	58,526	78,765	101,825
All other sources[3]	139,405	224,219	227,308	15,130	8,629	16,471	73,991	89,521	97,074	167,459	275,725	213,068
Percent distribution of revenues												
Total revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
State mental health agency funds (excluding Medicaid)	8.5	14.9	16.6	18.7	28.4	23.6	27.2	24.8	19.8	44.6	41.5	40.2
Other State government	25.9	20.3	20.1	13.5	21.9	16.2	6.1	5.0	6.0	6.6	6.1	4.8
Client feea received	7.5	9.5	7.3	2.7	3.2	1.2	13.5	15.4	16.6	9.0	7.5	7.1
Client fees that reverted to State	0.4	0.3	1.5	4.6	0.0*	0.0*	1.2	0.6	0.9	0.5	0.6	0.6
Medicaid (including Federal, State, and local share)	3.8	7.8	11.1	9.7	8.8	12.8	10.8	12.3	18.4	12.2	15.8	19.6
Medicare	0.0	0.5	0.5	0.4	0.4	2.8	1.6	1.2	1.2	1.3	1.6	1.7
Other Federal	2.7	2.5	1.6	1.7	2.8	1.6	2.2	1.3	2.7	3.8	4.3	4.7
Local government	36.0	32.3	29.5	24.5	16.7	27.6	21.5	24.3	20.3	15.9	16.3	16.6
Contract funds from other non-government organizations	0.8	0.5	1.2	1.9	7.4	0.8	1.6	1.7	2.3	1.6	1.4	1.5
All other sources[3]	14.4	11.4	10.6	22.3	10.4	13.4	14.3	13.4	11.8	4.5	4.9	3.2

Sources: Published and unpublished inventory data from the Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]Separate psychiatric services of non-Federal general hospitals, which are excluded from the table, had revenues in 1986 of $3.2 billion distributed as follows: patient (41.0 percent); Federal Government (including all Medicare and Medicaid) (40.7 percent); State mental health agency (3.8 percent); other State government funds (4.2 percent); local government (8.1 percent); all other sources (2.2 percent). In 1990 revenues of $4.9 billion were distributed as follows: patient (36.5 percent); Federal Government (including all Medicare and Medicaid) (49.1 percent); State mental health agency (3.6 percent); other State government funds (1.4 percent); local government (4.6 percent); all other sources (4.8 percent); in 1992, revenues of $15.4 billion were distributed as follows: patient (32.7percent); Federal Government (including all Medicare and Medicaid) (58.4 percent); State mental health agency (4.2 percent); other State government funds (0.8 percent); local government (2.0 percent); all other sources (1.9 percent).

[2]Includes Department of Veterans Affairs (formerly Veterans Administration) (VA); neuropsychiatric hospitals, general hospital psychiatric services, and psychiatric outpatient clinics.

[3]Includes block grant funds.

[4]Includes foundation requests, individual trusts, gifts, contributions of cash or liquid assets, United Funds, Mental Health Association and other charitable campaigns, as well as investments in non-mental health enterprises (e.g., vending machines, gift shops, rental properties, restaurants and canteens, interest and dividend revenue).

Table 7.11. Number of mental health organizations by type of organization and State: United States, 1986, 1990, and 1992

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Freestanding psychiatric outpatient clinics			Freestanding psychiatric partial care organizations			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
Total, United States	288	276	278	315	466	478	1,354	1,680	1,620	140	142	163	437	501	497	780	744	863	97	93	159	1,363	1,411	1,469
Excluding Territories	285	273	273	314	462	475	1,351	1,674	1,616	139	141	162	437	501	497	773	743	862	96	93	159	1,352	1,397	1,454
Alabama	5	6	6	4	5	4	23	32	33	3	3	3	2	6	4	-	-	-	-	-	-	23	24	26
Alaska	1	1	1	1	1	2	2	4	3	-	1	1	-	-	2	22	6	20	-	1	1	5	15	14
Arizona	1	1	1	3	12	13	15	11	12	2	2	3	10	11	9	8	8	-	-	-	-	16	16	16
Arkansas	1	1	1	1	5	6	9	13	17	1	1	2	2	2	4	3	2	2	-	-	-	17	16	15
California	6	5	6	37	52	58	99	135	119	11	10	12	48	48	47	87	96	89	21	12	13	107	103	109
Colorado	2	3	3	5	6	6	17	21	19	3	3	3	17	15	13	2	1	1	-	-	1	22	19	18
Connecticut	8	8	8	6	6	6	28	29	27	2	2	3	12	10	6	23	19	28	2	2	19	14	24	27
Delaware	2	2	2	1	2	2	4	5	6	1	1	1	5	8	7	3	1	2	-	-	-	6	5	7
Dist. of Col	1	1	1	1	1	1	8	8	8	1	1	1	1	1	1	3	2	11	-	-	5	3	8	17
Florida	7	7	8	22	35	35	55	66	60	4	5	4	9	19	12	12	9	5	2	2	2	52	45	51
Georgia	8	8	8	13	17	15	25	32	33	2	3	3	3	4	3	3	2	1	-	-	-	30	28	32
Hawaii	1	1	1	1	1	-	7	8	8	-	-	1	1	1	2	3	1	2	-	-	-	10	12	12
Idaho	2	2	2	7	6	6	3	4	4	1	1	1	2	2	2	3	7	7	-	-	-	8	10	11
Illinois	12	11	12	6	7	12	69	88	88	6	6	6	20	20	23	33	34	35	9	7	11	78	79	85
Indiana	7	7	8	14	16	18	32	42	42	2	2	3	10	8	9	-	-	-	-	-	-	14	14	13
Iowa	5	5	5	-	-	-	28	32	33	3	3	3	7	8	8	20	19	21	-	-	-	19	20	19
Kansas	4	4	4	6	8	9	19	22	24	3	3	3	1	5	5	12	11	10	-	-	-	17	15	18
Kentucky	5	4	4	6	9	9	19	25	28	2	2	2	6	18	11	-	-	-	1	-	1	17	14	14
Louisiana	6	6	6	11	21	21	13	30	33	3	3	3	3	4	5	18	42	43	-	1	1	15	6	4
Maine	2	2	2	1	1	1	10	10	9	1	1	1	3	4	3	3	3	10	3	4	7	11	9	15
Maryland	9	9	9	6	6	7	27	31	29	2	2	3	8	12	11	24	18	18	6	3	1	34	37	37
Massachusetts	9	9	8	10	10	11	52	64	63	6	4	4	36	47	47	33	33	29	6	15	15	62	70	71
Michigan	15	14	12	8	10	8	56	70	67	3	3	4	22	23	20	27	21	21	2	-	-	71	68	70
Minnesota	5	6	7	1	2	2	35	42	39	2	2	2	18	16	16	17	53	65	-	2	12	22	26	29
Mississippi	2	2	2	2	3	4	9	9	11	2	2	2	-	1	2	-	-	-	-	-	-	15	18	17
Missouri	10	10	8	5	6	8	41	61	50	3	3	4	16	15	14	20	13	16	-	-	-	17	25	23
Montana	1	1	1	3	3	4	5	6	5	-	-	1	2	2	2	-	-	-	-	-	-	5	5	5
Nebraska	3	3	3	1	1	2	11	9	9	2	2	3	3	3	3	6	5	9	1	1	5	9	10	9
Nevada	2	2	2	2	3	3	3	3	3	1	2	2	2	1	1	1	-	1	-	-	-	-	2	2
New Hampshire	1	1	1	3	3	3	8	11	12	1	1	1	6	3	-	-	-	-	-	-	-	10	11	10
New Jersey	11	11	11	4	4	5	51	54	51	2	2	2	10	11	12	20	16	16	4	3	2	38	40	39
New Mexico	1	2	2	3	8	7	7	8	7	1	1	1	5	3	16	11	8	8	1	4	5	9	11	15
New York	32	32	32	12	12	15	104	108	106	11	11	12	30	32	32	132	97	96	16	10	9	69	94	81
North Carolina	4	4	4	9	11	11	30	46	43	4	4	4	3	6	8	1	-	-	-	-	-	41	36	34
North Dakota	1	1	1	-	-	-	4	7	7	-	-	1	1	2	2	-	-	-	-	-	-	8	8	8
Ohio	17	15	15	9	9	10	71	83	82	5	5	5	17	19	26	36	28	81	2	3	10	81	77	94
Oklahoma	4	4	4	3	8	10	14	23	21	2	2	2	1	1	1	43	46	43	-	1	-	21	21	21
Oregon	3	3	3	2	2	1	11	12	13	2	2	3	7	10	11	19	15	20	2	4	4	32	39	34
Pennsylvania	15	13	13	16	24	24	93	109	103	5	5	9	13	23	22	31	29	38	10	8	23	85	77	87
Rhode Island	1	1	1	2	2	2	4	7	7	1	1	1	4	3	2	3	4	3	-	-	-	12	10	11

(Continued)

Table 7.11. Number of mental health organizations by type of organization and State: United States, 1986, 1990, and 1992 (continued)

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Freestanding psychiatric outpatient clinics			Freestanding psychiatric partial care organizations			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
South Carolina	5	5	5	3	5	5	12	14	14	2	2	2	2	3	3	10	1	1	-	-	-	8	16	16
South Dakota	1	1	1	-	1	1	4	3	3	3	3	3	3	6	4	1	3	3	-	-	-	11	10	10
Tennessee	5	5	5	6	10	12	27	44	47	4	4	4	2	6	6	2	2	4	3	3	3	33	23	26
Texas	10	8	8	33	71	61	65	83	77	8	8	10	13	11	13	3	9	6	-	-	-	41	38	42
Utah	1	1	1	4	7	6	16	17	15	1	1	1	3	2	2	1	-	-	-	-	-	10	11	13
Vermont	1	1	1	1	1	1	4	7	5	1	1	1	4	5	5	1	-	-	-	-	-	10	10	10
Virginia	10	10	10	15	14	13	28	38	39	3	3	3	8	7	5	8	4	6	1	1	1	32	36	39
Washington	3	3	3	2	3	3	23	29	22	4	4	4	8	10	11	8	15	17	-	1	1	35	41	40
West Virginia	3	2	2	1	3	3	12	11	11	3	3	4	4	2	3	2	1	1	-	-	-	14	14	14
Wisconsin	12	8	8	2	6	8	36	43	45	3	3	3	20	17	16	47	50	53	4	5	1	26	26	19
Wyoming	1	1	1	2	2	1	3	4	4	1	1	2	4	5	5	8	9	11	-	-	-	7	5	5
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Puerto Rico	3	3	5	1	4	3	3	4	2	1	1	1	-	-	-	7	1	1	1	-	-	9	12	13
Virgin Islands	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1

Sources: Published and unpublished inventory data from the Statistical Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]Includes Department of Veterans Affairs (formerly Veterans Administration) (VA); neuropsychiatric hospitals, general hospital psychiatric services, and psychiatric outpatient clinics.

Table 7.11a. Number of mental health organizations providing inpatient and/or residential services, by type of organization and State: United States, 1986, 1990, and 1992

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
Total United States	288	276	278	315	466	478	1,289	1,577	1,520	125	131	134	437	501	497	594	498	526
Excluding Territories	285	285	273	314	462	475	1,287	1,571	1,517	124	130	133	437	501	497	592	493	520
Alabama	5	6	6	4	5	4	23	32	33	2	2	2	2	6	4	21	12	13
Alaska	1	1	1	1	2	2	2	3	3	-	-	-	-	-	2	3	6	6
Arizona	1	1	1	3	12	13	14	9	10	2	2	2	10	11	9	14	13	13
Arkansas	1	1	1	1	5	6	9	12	17	1	1	2	2	2	4	13	7	7
California	6	5	6	37	52	58	92	121	104	9	9	8	48	48	47	69	47	50
Colorado	2	3	3	5	6	6	17	20	17	3	3	3	17	15	35	13	12	11
Connecticut	8	8	8	6	6	6	24	27	24	2	2	3	12	10	6	2	2	2
Delaware	2	2	2	2	2	2	4	4	5	-	1	1	5	8	7	3	-	-
Dist. of Col	1	1	1	1	1	1	8	8	8	1	1	1	1	1	1	-	1	2
Florida	7	7	8	22	35	35	55	66	60	4	5	4	9	19	12	47	28	32
Georgia	8	8	8	13	17	15	25	31	33	2	3	3	3	4	3	21	26	30
Hawaii	1	1	1	1	1	1	5	5	5	-	-	-	1	1	2	1	3	3
Idaho	2	2	2	7	6	6	3	4	4	1	1	1	2	2	2	-	-	-
Illinois	12	11	12	6	7	12	66	85	83	4	5	5	20	20	23	19	17	18
Indiana	7	7	8	14	16	18	32	41	41	2	2	2	10	8	9	8	5	5
Iowa	5	5	5	-	-	-	26	29	29	2	2	2	7	8	8	6	9	9
Kansas	4	4	4	6	8	9	19	20	23	3	3	3	1	5	5	7	4	5
Kentucky	5	4	4	6	9	9	19	25	28	2	2	2	6	18	11	16	9	9
Louisiana	6	6	6	11	21	21	13	29	32	3	3	3	3	4	5	1	3	2
Maine	2	2	2	1	1	1	9	10	9	1	1	1	3	4	3	4	4	7
Maryland	9	9	9	6	6	7	24	30	28	2	2	2	8	12	11	2	5	5
Massachusetts	9	9	8	10	10	11	45	56	55	5	4	4	36	47	47	26	26	26
Michigan	15	14	12	8	10	8	52	68	63	3	3	3	22	23	20	30	21	22
Minnesota	5	6	7	1	2	2	28	28	27	2	2	2	18	16	16	8	7	8
Mississippi	2	2	2	2	3	4	9	9	11	2	2	2	-	1	2	9	11	10
Missouri	10	10	8	5	6	8	39	53	46	3	3	4	16	15	14	13	12	11
Montana	2	1	1	1	3	4	5	6	4	-	-	1	2	2	2	-	-	-
Nebraska	3	3	3	1	1	2	10	9	8	2	2	2	3	3	3	5	2	2
Nevada	2	2	2	2	3	3	3	3	3	1	1	1	2	1	1	-	2	2
New Hampshire	1	1	1	3	3	3	8	11	12	1	1	1	6	3	-	4	4	4
New Jersey	11	11	11	4	4	5	47	49	47	2	2	2	10	11	12	-	5	5
New Mexico	1	2	2	3	8	7	7	8	6	1	1	1	5	3	16	3	4	5
New York	32	32	32	12	12	15	95	100	100	10	10	11	30	32	32	11	9	8
North Carolina	4	4	4	9	11	11	30	45	43	4	4	4	3	6	8	34	20	19
North Dakota	1	1	1	-	-	-	4	7	7	-	-	-	1	2	2	-	6	6
Ohio	17	15	15	9	9	10	71	78	79	4	4	4	17	19	26	34	35	43
Oklahoma	4	4	4	3	8	10	14	23	21	1	1	1	1	1	1	7	8	8
Oregon	3	3	3	2	2	1	11	12	13	2	2	3	7	10	11	9	5	4
Pennsylvania	15	13	13	16	24	24	89	104	101	5	5	5	13	23	22	16	16	18
Rhode Island	1	1	1	2	2	2	4	5	5	1	1	1	4	3	2	2	1	1
South Carolina	5	5	5	3	5	5	12	14	14	2	2	2	2	3	3	1	3	3
South Dakota	1	1	1	-	1	1	4	3	3	3	3	3	3	6	4	3	2	2
Tennessee	5	5	5	6	10	12	27	43	45	4	4	4	2	6	6	12	8	98
Texas	10	8	8	33	71	61	64	83	77	7	8	7	13	11	13	39	27	30
Utah	1	1	1	4	7	6	16	15	14	1	1	1	3	2	2	8	6	7
Vermont	1	1	1	1	1	1	4	7	5	1	1	1	4	5	5	3	1	1
Virginia	10	10	10	15	14	13	28	38	39	3	3	3	8	7	5	13	9	10
Washington	3	3	3	2	3	3	22	27	20	2	3	3	8	10	11	9	13	13
West Virginia	3	2	2	1	3	3	12	11	11	2	3	2	4	2	3	8	7	7
Wisconsin	12	8	8	2	6	8	35	41	38	3	3	3	20	17	16	13	9	7
Wyoming	1	1	1	2	2	1	3	4	4	1	1	1	4	5	5	2	1	1
Guam	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1	1
Puerto Rico	3	3	5	1	4	3	2	4	1	1	1	1	-	-	-	-	3	3
Virgin Islands	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	1	1	1

Source: Published and unpublished inventory data from the Statistical Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]Includes Department of Veterans Affairs (formerly Veterans Administration) (VA); neuropsychiatric hospitals, general hospital services, psychiatric outpatient clinics.

Table 7.11b. Number of mental health organizations providing outpatient services, by type of organization and State: United States, 1986, 1990 and 1992

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Freestanding psychiatric outpatient clinics			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
Total United States	83	85	77	114	177	198	499	634	619	138	142	162	99	163	167	780	744	863	1,254	1,262	1,323
Excluding Territories	83	84	75	114	176	198	497	633	618	137	141	161	99	163	167	773	743	862	1,243	1,249	1,309
Alabama	-	-	-	2	-	2	3	3	5[1]	3	3	3	-	2	-	-	-	-	23	23	25
Alaska	-	-	-	-	1	2	-	2	-	-	1	1	-	-	1	2	6	20	5	15	12
Arizona	-	-	-	2	9	8	9	9	5[1]	2	2	3	3	6	3	8	8	8	14	14	13
Arkansas	1	-	-	1	2	2	1	4	2	1	1	2	-	1	3	3	2	2	17	16	15
California	1	-	-	15	18	16	36	52	40	11	10	12	8	10	11	87	96	89	89	83	89
Colorado	1	2	2	3	1	1	4	9	11	3	3	3	2	3	3	2	1	1	22	19	18
Connecticut	1	1	1	1	2	3	22	24	24	2	2	3	2	1	-	23	19	28	11	13	15
Delaware	1	1	1	-	-	-	2	3	3	1	1	1	-	2	3	3	1	2	5	4	6
Dist. of Col.	1	1	1	1	-	-	3	2	4	1	1	1	-	-	1	3	2	11	3	5	10
Florida	-	-	-	5	7	9	13	14	14	4	5	4	1	13	6	12	9	5	45	41	49
Georgia	-	-	-	1	9	9	5	9	13	2	3	3	1	1	-	3	2	1	29	28	32
Hawaii	-	-	-	-	-	-	4	5	4	-	-	1	-	1	1	3	1	2	9	10	10
Idaho	-	-	-	3	4	5	-	2	1	1	1	1	1	-	-	3	7	7	8	10	11
Illinois	1	1	1	2	3	4	27	31	40	5	6	6	9	6	10	33	34	35	76	75	78
Indiana	1	1	1	12	13	16	10	16	20	2	2	3	2	2	1	-	-	-	14	14	13
Iowa	4	4	3	-	-	-	10	12	12	3	3	3	2	5	2	20	19	21	14	16	16
Kansas	-	-	-	2	4	3	5	3	5	3	3	3	-	3	3	12	11	10	17	15	18
Kentucky	1	1	1	1	4	3	3	5	2	2	2	2	2	5	2	-	-	-	17	14	14
Louisiana	-	1	1	4	6	7	3	7	10	3	3	3	1	2	-	18	42	43	15	2	3
Maine	-	1	1	-	1	1	4	2	3	1	1	1	1	2	2	3	3	10	10	8	13
Maryland	2	2	2	5	3	5	13	11	8	2	2	3	-	2	2	24	18	18	16	20	23
Massachusetts	-	-	1	4	3	4	35	37	43	6	4	4	6	13	16	33	33	29	50	58	58
Michigan	6	5	4	2	4	3	20	22	27	3	3	4	4	9	7	27	21	21	71	68	69
Minnesota	-	2	-	-	2	1	19	32	30	2	2	2	6	2	5	17	53	65	20	22	25
Mississippi	-	1	-	-	-	2	2	4	3	2	2	2	-	-	-	-	-	1	15	17	17
Missouri	9	7	5	1	-	2	13	24	22	3	3	4	5	7	8	20	13	16	17	21	22
Montana	-	-	-	-	1	-	1	2	2	-	-	1	-	-	-	-	-	-	5	5	5
Nebraska	-	1	-	-	1	1	5	5	4	2	2	3	-	1	1	6	5	9	8	9	9
Nevada	2	2	2	-	1	-	-	2	1	1	2	2	2	1	1	1	-	1	-	2	2
New Hampshire	-	-	-	-	-	-	1	2	1	1	1	1	-	-	-	-	-	-	10	10	10
New Jersey	2	2	1	2	4	4	24	28	28	2	2	2	1	2	3	20	16	16	35	36	34
New Mexico	-	1	-	3	1	3	2	4	3	1	1	1	2	2	4	11	8	8	9	11	15
New York	29	39	29	2	2	4	66	69	68	11	11	11	7	12	12	132	97	96	52	70	66
North Carolina	-	1	-	3	7	8	7	7	6	4	4	4	-	3	6	1	-	-	41	36	34
North Dakota	-	-	-	-	-	-	-	4	4	-	-	1	-	-	-	-	-	-	8	8	8
Ohio	-	1	1	4	7	9	21	27	26	5	5	5	7	8	15	36	28	81	80	73	88
Oklahoma	-	-	2	3	4	5	3	7	5	2	2	2	1	-	-	43	46	43	20	21	21
Oregon	-	-	-	1	1	-	4	3	5	2	2	3	2	4	6	19	15	20	32	38	31
Pennsylvania	-	-	-	7	11	12	39	38	38	5	5	9	5	9	6	31	29	38	77	69	76
Rhode Island	-	-	-	2	1	2	1	2	4	1	1	1	1	1	-	3	4	3	11	9	11

(Continued)

Table 7.11b. Number of mental health organizations providing outpatient services, by type of organization and State: United States, 1986, 1988 and 1990 (Continued)

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Freestanding psychiatric outpatient clinics			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
South Carolina	1	1	-	-	1	1	2	5	3	2	2	2	-	1	2	10	1	1	8	16	16
South Dakota	-	-	1	-	1	1	-	-	1	2	3	3	-	-	1	1	3	3	11	10	10
Tennessee	2	1	-	1	4	5	6	7	7	4	4	4	-	4	4	2	2	4	32	23	26
Texas	9	7	7	10	19	17	15	21	15	8	8	10	1	2	3	3	9	6	41	38	41
Utah	-	-	-	1	3	3	5	6	9	1	1	1	1	-	-	1	-	-	10	11	13
Vermont	-	-	-	1	-	-	1	1	-	1	1	1	-	-	-	1	-	-	10	10	10
Virginia	1	2	2	3	6	7	3	12	5	3	3	3	-	1	1	8	4	6	32	38	39
Washington	-	-	-	1	1	1	5	10	8	4	4	4	4	5	5	8	15	17	35	39	39
West Virginia	-	-	-	-	1	1	2	1	-	3	4	4	-	-	-	2	1	1	14	14	14
Wisconsin	6	5	5	1	2	5	18	22	22	3	3	3	8	7	5	47	50	53	23	19	12
Wyoming	-	-	-	2	1	1	-	3	2	1	1	2	1	2	2	8	9	11	7	5	5
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Puerto Rico	-	3	1	2	1	-	2	1	1	1	1	1	-	-	-	7	1	1	9	11	12
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1

Source : Published and unpublished inventory data from the Statistical Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.
[1]Includes Department of Veterans Affairs (formerly Veterans Administration) (VA); neuropsychiatric hospitals, general hospital psychiatric services, and psychiatric outpatient clinics.

Table 7.11c. Number of mental health organizations providing partial care services, by type of organization and State: United States, 1986, 1990, and 1992

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Freestanding psychiatric partial care organizations			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
Total United States	57	56	48	102	315	382	281	420	423	63	71	68	123	199	195	97	93	159	1,232	1,293	1,289
Excluding Territories	57	56	47	102	313	381	281	418	423	63	71	68	123	199	195	96	93	159	1,221	1,280	1,275
Alabama	-	-	-	-	4	3	-	1	3	1	3	2	-	3	1	-	-	-	22	23	24
Alaska	-	-	-	-	2	2	-	-	-	-	-	-	-	-	2	-	1	1	4	7	8
Arizona	-	-	-	3	8	12	5	5	4	1	1	1	5	9	5	-	-	-	15	15	14
Arkansas	-	-	-	1	3	4	-	1	2	1	1	1	-	1	3	-	-	-	17	16	14
California	-	-	-	15	41	47	25	35	31	6	5	6	19	17	16	21	12	13	93	95	91
Colorado	1	2	1	4	5	5	4	8	9	1	2	2	4	6	5	-	-	1	22	18	17
Connecticut	-	-	-	6	6	6	13	23	21	1	1	2	5	7	2	2	2	19	11	20	21
Delaware	1	1	1	-	1	1	1	3	3	-	-	-	-	1	1	-	-	-	3	5	6
Dist. of Col	-	-	-	1	1	1	1	2	2	1	-	1	1	-	1	-	-	5	3	8	13
Florida	-	-	-	4	22	22	10	13	16	2	2	2	2	12	6	2	2	2	47	41	47
Georgia	-	-	-	5	10	12	3	9	6	-	-	-	1	1	1	-	-	-	25	27	31
Hawaii	-	-	-	-	1	-	2	3	1	-	-	1	1	-	-	-	-	-	8	11	11
Idaho	-	-	-	1	2	4	-	1	-	-	-	-	-	-	1	-	-	-	8	10	11
Illinois	-	-	-	-	5	11	15	23	32	3	2	3	11	8	10	9	7	11	68	75	76
Indiana	-	-	-	13	15	18	9	12	14	-	2	1	-	-	-	-	-	-	14	14	13
Iowa	1	-	-	-	-	-	5	9	8	2	2	-	2	2	2	-	-	-	16	18	15
Kansas	1	1	1	2	6	7	3	2	3	2	2	2	-	1	1	-	-	-	16	15	18
Kentucky	1	1	-	-	2	6	1	1	-	2	2	2	1	3	1	1	-	1	17	14	14
Louisiana	-	-	-	3	12	18	-	5	9	1	2	2	-	1	1	-	1	1	15	3	2
Maine	-	-	1	-	1	1	2	3	3	-	1	-	2	3	2	3	4	7	10	9	11
Maryland	2	1	1	2	5	7	7	8	5	1	2	-	4	3	5	6	3	1	31	34	28
Massachusetts	-	-	-	1	5	9	7	10	7	3	3	3	7	15	14	6	15	15	48	55	58
Michigan	4	2	1	4	9	8	21	24	30	1	1	-	5	8	5	2	-	-	65	62	66
Minnesota	-	-	-	-	2	2	13	14	14	2	2	2	4	4	5	-	2	12	18	24	26
Mississippi	1	2	1	-	2	4	1	2	1	-	1	-	-	-	-	-	-	-	15	15	17
Missouri	5	4	-	-	3	6	4	18	18	2	2	2	5	9	6	-	-	-	16	23	20
Montana	-	-	-	-	-	2	-	2	4	-	-	-	-	1	-	-	-	-	5	5	5
Nebraska	1	-	-	-	-	1	3	3	2	1	1	1	2	2	2	1	1	5	8	9	9
Nevada	2	2	2	-	3	3	-	2	1	-	1	-	2	1	1	-	-	-	-	2	2
New Hampshire	-	-	-	-	2	2	-	1	2	-	-	-	-	1	-	-	-	-	10	11	10
New Jersey	-	-	-	-	4	3	18	15	16	1	2	1	1	6	5	4	5	2	37	37	37
New Mexico	-	-	1	2	2	7	1	3	1	1	1	1	1	1	4	1	5	5	8	11	15
New York	28	28	30	4	3	8	36	35	35	9	9	11	7	15	18	16	16	9	62	87	74
North Carolina	-	-	-	3	10	11	2	3	3	-	-	-	-	4	5	-	-	-	41	35	33
North Dakota	-	-	-	-	-	-	1	6	3	-	-	-	-	-	-	-	-	-	8	7	7
Ohio	-	-	-	2	9	10	11	22	21	1	3	3	6	9	19	2	3	16	75	70	76
Oklahoma	-	-	-	2	6	9	-	6	7	1	1	1	-	-	-	-	1	-	21	21	21
Oregon	-	-	-	1	1	-	3	6	6	1	1	1	2	6	6	2	4	4	27	35	31
Pennsylvania	-	-	-	5	12	16	23	21	24	3	2	4	9	16	14	10	9	23	77	73	81
Rhode Island	-	-	-	2	1	2	-	-	-	1	1	-	1	2	1	-	-	-	11	9	10

(Continued)

Table 7.11c. Number of mental health organizations providing partial care services, by type of organization and State: United States, 1986, 1990, and 1992 (continued)

State/Territory	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospital psychiatric services			VA medical centers[1]			RTCs for emotionally disturbed children			Freestanding psychiatric partial care organizations			Multiservice mental health organizations		
	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992	1986	1990	1992
South Carolina	-	1	-	-	4	3	1	2	2	-	-	-	-	3	3	-	-	-	8	16	16
South Dakota	-	-	-	-	-	-	-	1	1	1	-	-	1	-	1	-	-	-	11	10	10
Tennessee	1	1	1	-	6	10	5	6	4	2	1	-	-	2	4	3	3	3	32	23	26
Texas	1	5	1	9	54	54	8	19	21	4	4	4	1	1	2	-	-	-	37	36	14
Utah	-	-	-	-	3	4	-	5	3	1	1	1	1	-	-	-	-	-	9	11	13
Vermont	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	10	10	10
Virginia	2	1	1	4	13	12	3	9	7	1	1	1	1	2	1	1	1	1	27	32	38
Washington	1	1	1	2	2	2	4	7	5	2	2	2	4	3	5	-	1	1	34	39	36
West Virginia	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	13	13	12
Wisconsin	3	3	4	-	4	6	10	6	12	-	1	2	4	8	5	4	5	1	16	17	12
Wyoming	-	-	-	1	1	1	-	-	1	-	-	-	1	1	2	-	-	-	7	4	5
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Puerto Rico	-	-	1	-	2	1	-	2	-	-	-	-	-	-	-	1	-	-	9	11	12
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1

Sources: Published and unpublished inventory data from the Statistical Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services.

[1]Includes Department of Veterans Affairs (formerly Veterans Administration) (VA); neuropsychiatric hospitals, general hospital psychiatric services, and psychiatric outpatient clinics.

Chapter 8

Developments in Medicaid Managed Behavioral Health Care

Richard G. Frank, Ph.D.
Harvard University

Thomas G. McGuire, Ph.D.
Boston University

Elizabeth H. Notman, M.A.
Harvard University

Rebecca M. Woodward, B.A.
Harvard University

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Introduction

State Medicaid programs have rapidly become the frontier for the expansion and refinement of managed care technologies to the delivery of mental health and substance abuse care (frequently referred to as behavioral health care). Managed behavioral health care (MBHC) under Medicaid represents the diversity of approaches to managed care found in the private market. State Medicaid programs currently take the following approaches to MBHC: 1) inclusion of behavioral health as part of benefits included in capitated HMO arrangements, 2) statewide carve-out programs where behavioral health services are managed separately from other care, 3) specialty carve-outs where only care for persons with severe mental illness (SMI) or other high risk groups are managed separately and 4) mixed approaches of carve-out and HMO arrangements.

The current state of affairs reflects a willingness on the part of States to experiment in order to rein in the rapidly growing cost of Medicaid (Rowland et al. 1993), and to attend to long standing imbalances in patterns of treatment for mental and addictive disorders. For example, approximately 70 percent of Medicaid spending on MH/SA in the late 1980s typically was devoted to institutional care (Frank et al. 1994). Similarly, significant levels of substance abuse spending under Medicaid was directed towards 28-day inpatient detoxification programs. MBHC is forcing MH/SA systems to alter treatment patterns. At the same time, shifts in the organization of care delivery, and expanded use of risk-based funding mechanisms, such as capitation, carry risks of under treatment and low quality care (see Mechanic, chapter 1, this volume). For these reasons, States are searching for mixes of organizational structure and financial incentives that achieve cost control, while making improvements to the delivery of MH/SA care.

The research presented here is meant to provide some basic descriptions of the "state of play" in MBHC under Medicaid. In this chapter, we review data on enrollment patterns in managed care and MBHC under the Medicaid program. We then provide some descriptions of approaches to MBHC carve-outs within the Medicaid program. Finally, in order to illustrate the potential for changes in spending and treatment patterns under a MBHC carve-out program (with weak financial incentives), we review data from the first three and a half years of the Massachusetts MBHC carve-out program.

Medicaid Enrollment

Tracking enrollment in Medicaid MBHC is difficult. The 50 individual State programs and those of the District of Columbia and several territories are evolving rapidly, given the Federal Government's flexibility in allowing waivers from key Federal standards set out in Title XIX of the Social Security Act. A second difficulty in making estimates concerns the presence of several mixed approaches to managed care. For example, some States allow for choice between HMOs and behavioral health carve-out programs (e.g. Massachusetts). Thus, one needs to carefully track Medicaid enrollment patterns to obtain precise estimates. Finally, State data systems often can only report totals with a significant time lag and sometimes not at all. The implication of these complications is that one must use a number of data sources in order to assemble a patchwork estimate.

We made use of several different data sources to compile overall estimates of enrollment in MBHC carve-out programs (table 8.1). In addition, the American Managed Behavioral Health Association (AMBHA) made an estimate of the total number of Medicaid-eligible individuals whose behavioral health care would be managed by an AMBHA member during 1995. The AMBHA estimate was 1,972,617. It is important to note that not all MBHC organizations are AMBHA members, which is likely to result in an underestimate. On the other hand, AMBHA's data are more recent than those used by other sources, and may incorporate new MBHC initiatives not counted by them. Another challenge to estimation is the fact that some States delegate decisions about managed Medicaid to local government. The most prominent such case is California, where counties have been given responsibility for managing Medicaid.

Table 8.1 presents estimates of carve-out enrollment for a point in time, June 1995. The estimates presented on the table represent a combining of estimates from several sources: 1) a report from Lewin-VHI (1995); 2) the 1995 HCFA Medicaid Enrollment Report; 3) interviews with Lewin staff; 4) several original State reports; and 5) interviews with State Medicaid employees. Our total enrollment estimate for June 1995 was about 1.8 million people. HCFA estimates that there were roughly 9.8 million people enrolled in all forms of managed care under the Medicaid program. Hence only about 20 percent of all lives in Medicaid managed care are under carve-out contracts organized by State Medicaid agencies. There are a number of HMOs with Medicaid contracts that sub-contract with behavioral health care vendors for MH/SA care. It is also clear that the implementation of carve-outs in Nebraska, Colorado and the latest version of TennCare will greatly expand the number and the share of Medicaid enrollees enrolled in carve-out programs. Our estimates may also incorrectly classify segments of State populations where the carve-out decision has been delegated to the local government.

Table 8.1 also underscores the heterogeneity of how carve-out arrangements are implemented. For example, in Arizona the initial phase of the Title XIX carve-out program focussed primarily on individuals classified as adults and children with severe mental illness. Non-SMI adults were not included under the Medicaid capitation arrangement, but were eligible for treatment funded by State dollars that were managed by the MBHC carve-out vendor. In North Carolina, only a sub-set of services were included in the program. Utah established sole-source franchise contracts with Community Mental Health Centers (CMHCs). This diversity in implementation, and the programmatic structure of the carve-out arrangements may render the enrollment estimates somewhat misleading. For example, the North Carolina number refers to enrollment for only a subset of services. The Arizona numbers offer "risk protection" for all Medicaid children and all adults against treatment for severe mental illness. The protection against other forms of mental health care is a more complicated matter. We discuss these programs in greater detail below.

Returning to the overall estimates, the AMBHA estimate covers a period after June 1995, and captures several of the newer initiatives. It is clear from table 8.1, that in order to obtain precise estimates of MBHC carve-out enrollment, one cannot simple rely on enrollment data from 19 of the largest behavioral health care organizations. Many of the States listed on table 8.1 contract with organizations that are not

Table 8.1. Medicaid MBHC Enrollment as of June 1995

State	Number of Enrollees in Carve-Out	No SA	Children Only	SMI Only	Not Statewide
Arizona	309,917		X	X	
Iowa	170,000	X			
Massachusetts	391,858				
North Carolina	127,200		X		X
Oregon	58,822				
Utah	48,000	X*			
Washington	522,162				
Total	**1,846,170**				

Carve-Out After 6/95

Colorado	196000	X			
Florida	218,220	X			X
Hawaii	<1000			X	
Nebraska	>86,450	X			
Tennessee	803285				

*SA is not included in all catchment areas

members of AMBHA. Table 8.1 also emphasizes the rapid change in management of MH/SA under Medicaid. This will continue as new States develop managed Medicaid plans and existing State policies evolve. The continuing evolution of State policy is illustrated by Massachusetts, which, in 1996, changed MBHC vendor and added responsibility for the acute care of indigent non-Medicaid eligible individuals with serious mental illnesses.

Descriptions of State Programs

Even before the demise of the Clinton Administrations's health care reform efforts, State governments began taking action to address escalating health care costs and quality of care issues. A growing trend which has been encouraged by the Federal Government has been to implement managed care programs for Medicaid enrollees. Medicaid funding has been an increasing percentage of States' budgets, putting pressure on the State governments to create and implement sustainable alternatives to the traditional fee-for-service Medicaid program. Carving-out mental health, and, in some cases, substance abuse, has become increasingly common.

With respect to the structure of carve-outs, exception is the rule; standard approaches do not exist. As summarized in table 8.1, variation and special circumstances exist across almost all of the current carve-outs. Nevertheless, similarities are also present. Almost all carve-outs germinated in the State legislatures which drafted applications for "Research and Demonstration" 1115 or, more likely, "Freedom of Choice" 1915b waivers, which were then approved by HCFA. The 1915b waivers are designed to sanction the greater use of managed care delivery models for Medicaid recipients.

Once granted a waiver, a State announces a Request for Proposals (RFP), perhaps using competitive bidding. If only public providers are eligible for contracts, there is no bidding process. The contract (or contracts) are awarded. Often, significant delay occurs between the planned implementation date stated in the waiver application or the RFP and the actual start date. This is one reason why HCFA enrollment data are not always accurate; the numbers tend to be based on expected, rather than actual, enrollment and dates.

The trend of carving-out for MH services began in Utah in July, 1991, when a pilot (regional) program designed to provide managed mental health was implemented in three catchment areas in the State, covering 52 percent of the Medicaid population. Initially, CMHCs were contracted by Utah to provide both inpatient and outpatient mental health care to the Medicaid population in these areas, although the CMHCs were not "at-risk" for outpatient care until several years later, in January 1995. At a recent count, approximately 90 percent of Utah's Medicaid population obtains their mental health care through a capitated program. SA services are now provided by these CMHCs in some, but not all catchment areas.

Following Utah's early example, Oregon implemented a similar program, contracting with CMHCs, which were public centers developed in the early 1960s to serve as a "well-coordinated, easily-accessed continuum of care in each community" (Freeman et al. 1994). In Oregon, contracts were initially awarded to nine CMHCs to provide all MH services to the Oregon Health Plan (OHP) eligibles in 20 counties. Close to 25 percent of the Medicaid population was covered by the mental health managed care companies (MHMCOs), or about 100,000 enrollees as of November 1995.

Other States have established managed care through private non-profit organizations. In Arizona, the State Division of Behavioral Health Services (BHS) contracts with Regional Behavioral Health Authorities, private non-profit organizations to provide capitated mental health services to Title XIX children and SMI

adults.[1] In Washington, Regional Support Networks (RSNs) act as gatekeepers and contract with CMHCs for outpatient care. In Hawaii, the Hawaii Medical Services Associate (HMSA) contracted with the State to provide MH services for adults with SMI; HMSA then subcontracted with nine CMHCs which were to provide these services.[2] Utah, Oregon, Hawaii, Arizona, and Washington are similar, in that these States chose not to contract with a private for-profit entities.

A second option chosen by States has been to contract with a private for-profit vendor to provide MH services to their Medicaid populations. Nebraska has contracted with Options Mental Health which provides mental health, but not substance abuse services. Enrollment in the Nebraska Medicaid Managed Care Program (NMMCP) is mandatory for designated Medicaid recipients, and is being phased in throughout the State over a period of time. Approximately 65 percent of the Medicaid population is covered by NMMCP with their MH services managed by Options.

Massachusetts and Iowa provide MH/SA State-wide, via either one private vendor or an HMO. In this arrangement, an eligible individual receives MH/SA through the private vendor, if they are enrolled in the general health plan or through their HMO. Beginning in mid-1992, Mental Health Management of America (MHMA) served the Massachusetts Medicaid population. Mass Behavioral Health Partnership won the second contract (to last three years) which began July, 1996.[3] Similarly, in Iowa, Merit Behavioral Health provides MH for those eligible who are not enrolled in HMOs.

In Florida, enrollment in the Prepaid Mental Health plan in the five-county area surrounding Tampa is mandatory for all eligibles who are not enrolled in HMOs. On July 11, 1995, the State selected Florida Health Partnership (FHP), a collaboration of Mental Health and Florida Behavioral Health, to provide behavioral health services to 218,000 individuals.[4]

Tennessee will exemplify yet another new trend when it carves-out MH/SA services from the general Medicaid managed care program, TennCare. TennCare initially offered MH/SA services as part of the basic benefit package. Tennessee halted this integrated approach in July 1995, due to financial and enrollment problems. Tennessee was granted waiver approval by HCFA for the Partners Program in April 1996. In the Partners Program, each TennCare enrollee will be assigned to an MCO for their general managed care, and to a Behavioral Health Organization (BHO) for their MH/SA services. The Partners Program is expected to serve 1.2 million TennCare enrollees plus 45,000 SMI adults and 6,000 SED children not originally included in the Tennessee program (BNA 1996).[5,6]

There is not a one-to-one relationship between plan type and risk arrangement. The carve-out contract may specify that the vendor takes no-risk, partial risk, or full-risk for the services they provide. According to the HCFA report, only 48 percent of Medicaid beneficiaries were in HMOs in 1995, whereas 63 percent were in plans listed as full capitation; "plans of various types can select from a range

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[1]The RBHAs also receive block grant funding and are responsible to provide general mental health and substance abuse to non- Title XIX enrollees.

[2]See Susan Busch's State carve-out summary (In Press).

[3]PsychLink: Industry News on the World Wide Web.

[4]PsychLink: Industry News on the World Wide Web.

[5]As of May 1996, the implementation of Partners had been delayed for at least two more months. "The State is still grappling with fundamental issues relating to the design of the carve-out."

[6]Bonnyman G. Status of TennCare - May 1996, found on the Center for Health Care Strategies Web page.

of capitation options."[7] A vendor may be given the latitude to make profits, but then it will also be held financially responsible for losses incurred.

In Nebraska and Iowa, private vendors (Options and Merit, respectively) have contracted with the States at different risk levels. In Nebraska, Options is fully at risk for the services it provides, and limits are not placed on vendor profits. Such an arrangement is often referred to as a "full capitation" contract. In contrast, Merit in Iowa keeps only 20 percent of savings resulting from actual claims falling below expected claims. This represents "soft capitation"; the contract splits the profits and the losses between Merit and the State of Iowa, based on a 20 percent/80 percent sharing-ratio (Huskamp 1996).

When risk for the vendor is written into the contract, "stop-loss" provisions may help protect the vendor from the losses it might face. In Colorado's Coordinated Assessment and Services Agency program (CASA), for example, all contractors are responsible for up to $35,000 per person/per year. After an individual has incurred more than that cost, the State pays for half of their MH care.[8] The carve-out contract in Hawaii for SMI adults specifies the there is a life-time cap of $30,000. After reaching this cap, the State and reinsurance plan divide the cost equally. Stop-loss provisions, commonly used in public contracts, protect the contractor from financial risk associated with higher-than-expected costs (Huskamp 1996).

Not all Medicaid enrollees are eligible for these carve-outs; the State chooses which population groups will be best covered by the carve-out arrangement. In most cases, it's mandatory that an individual enroll into a program if eligible. The Hawaii carve-out serves only SMI adults, who are frequent users of mental health services; the North Carolina carve-out was designed solely for children under the age of nineteen. The Arizona MH carve-out was originally implemented to serve Title XIX children and SMI adults; the Nebraska NMMCP excludes subsidized adoption, Medicare eligibles and those eligible for Medicaid through spend down.

Out of those eligible for Medicaid, including the blind/disabled, the aged, AFDC children and AFDC adults, AFDC low-income children and adults have historically required the least amount of Federal Medicaid dollars.[9] Some of the States have chosen to implement a carve-out to serve these AFDC recipients. Colorado's CASA program excludes nursing home recipients, adults in State mental health hospitals, and some children and adolescents in a RCCF. Iowa's MMHCP program excludes persons over 65, and adults and children in State mental institutions. Washington's program serves all categorically and medically needy recipients, except Medicaid eligible residents of State-owned institutions.

Massachusetts Case Study

Massachusetts provides an interesting example of how managed care can affect the spending and treatment patterns within a Medicaid program. As noted earlier, Massachusetts began a MBHC carve-out program for some of its Medicaid beneficiaries in July 1992. All Medicaid enrollees not covered by an HMO, approximately 350,000 people, were covered under the new arrangement (Division of Medical Assistance Data Book 1995). Studies of the performance of the Massachusetts soft capitation program

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[7]As pointed out by Guyer J. Trends in Medicaid Managed Care Enrollment and Plan Arrangement, found on the Center for Health Care Strategies Web page.

[8]Data contributed as result of a Robert Woods Johnson Foundation-funded State survey

[9]This does not include the Other category. "Spend down" recipients, for example, are individuals who weren't eligible for Medicaid based on their income until their medical costs brought down their income to a qualifying level. According to the 1993 Medicaid Source Book, the Other category was 1.6 percent of the total Medicaid payments, whereas children were 15.1 percent, and adults were 13.5 percent.

showed savings of about 26 percent over the three years following the carve-out (Frank and McGuire 1996). Findings also show that nearly all of the savings were realized by reducing the cost of serving the disabled.

Using data from the Massachusetts Division of Medical Assistance, we examined the changes in spending on, and utilization of, mental health and substance abuse care which occurred in the two and a half years following the carve-out, July 1992 through December 1994. This allows for an initial analysis of changes in treatment which were responsible for reductions in costs. Specifically, we focus on changes in inpatient and outpatient mental health care, crisis intervention, partial hospitalization, inpatient and outpatient substance abuse care, and acute residential substance abuse care. We show the trends separately for Supplemental Security Income (SSI) disabled and non-disabled Medicaid enrollees.

Total spending, and spending per enrollee on inpatient mental health services, both fell between July 1992 and December 1994, as shown in figure 8.1. Toward the end of 1994 the non-disabled spending began to rise again, but not back to its original levels. The number of disabled persons using inpatient mental health care stayed fairly constant (although the number of disabled enrollees grew substantially), while the number of non-disabled users actually increased. To achieve these cost savings, policy was directed towards: 1) reducing the price paid for inpatient care; 2) reducing the rate of admission for the disabled population; and 3) controlling the number of inpatient days per user. For both enrollee groups combined, the number of inpatient days per 1,000 enrollees (admissions/1,000 x average length of stay) fell from 23 in July 1992, to 19 by the end of 1994) (DMA Data Book 1995).

The cost of outpatient mental health care was also reduced following the implementation of the carve-out (figure 8.2). Total spending on both enrollee groups fell substantially. For the non-disabled population, this reduction in total spending was achieved without reducing the number of users. Spending per enrollee for the non-disabled fell slightly as a result of the cost savings. In contrast, the number of disabled users declined steadily during the study period, as did the rate of use per 1,000 enrollees. In July 1992, spending per enrollee for the disabled population was high, relative to the cost per enrollee of other types of services. The reduction in the number of expensive disabled users brought spending per enrollee down by the end of 1994.

Two types of treatments with increasing usage and spending are crisis intervention and partial hospitalization, which became an option for care in September 1993. For both enrollee groups, the number of users and total spending on crisis intervention increased during the two and a half years following the carve-out (figure 8.3). Although both usage of crisis intervention and spending decline from May 1994 onward for the disabled population, they did not return to their original levels. As shown in figure 8.4, the total number of users of partial hospitalization was initially fairly low for both enrollee groups, but increased over time, along with total spending. While spending per enrollee was rising for both enrollee groups for crisis intervention and partial hospitalization, it remained low relative to other treatment methods. Thus, even though one would expect spending on these services to increase, in order to achieve reductions in inpatient care, one might have expected higher levels of spending in each area.

As with mental health care, the trend in substance abuse treatment was a reduction in overall costs, and a shifting of treatment focus to less expensive methods. Figure 8.5 shows that inpatient substance abuse spending and utilization fell drastically during the first six months after the carve-out was implemented for both the disabled and the non-disabled populations. A 94 percent reduction in spending per enrollee was realized along with reduction of about 190 disabled users and 140 non-disabled users per month. For the non-disabled, an increase in outpatient use seems to be compensating for a portion of the reduction in inpatient care. The total spending, and spending per enrollee on outpatient substance abuse services, along with the number of users of those services, all increased for the non-disabled. For the disabled, however, outpatient substance abuse usage and total spending declined slightly during this period (figure 8.6). The trends for acute residential substance abuse treatment are shown in figure 8.7. This type of

treatment became an option in October 1992, undoubtedly drawing enrollees from other substance abuse treatment services. Since October 1992, total usage of, and spending on, acute residential substance abuse services have fluctuated widely for both enrollment categories, but the net change has been an increase in the number of users, total expenditures, and spending per enrollee.

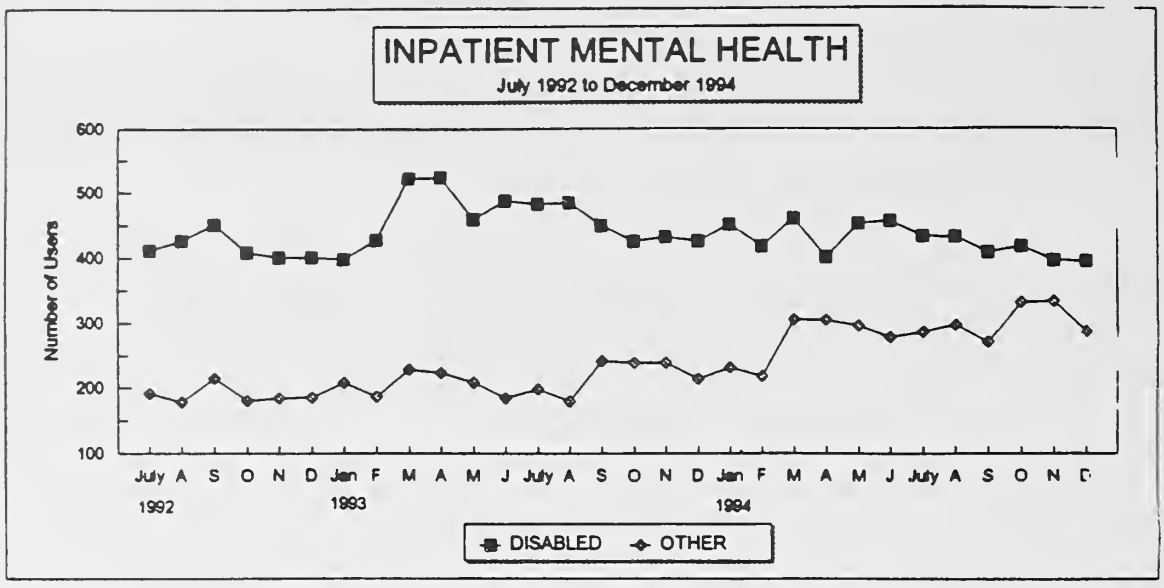
The data suggest that the savings realized in Massachusetts were generated by instituting rather dramatic shifts in treatment patterns for MH/SA problems. In particular, large savings stemmed from reduction in acute inpatient care. Spending per enrollee for inpatient mental health care fell approximately 30 percent during the two and a half years following the carve-out. All of this change came via reductions in hospital care for the disabled enrollment group. Spending on inpatient substance abuse care per enrollee fell by about 94 percent during the same period. Again, the bulk of this reduction was due to reducing hospital care for disabled enrollees. Mental health spending on outpatient care was also reduced significantly, approximately 60 percent for the disabled. The decline in outpatient spending resulted from a combination of reduced utilization and reduced prices to providers. Accompanying these important reductions in spending were some notable increases in specific treatment modalities. For example, there were substantial increases in crisis intervention services and partial hospital care for mental health, and in the use of residential services for substance abuse. Yet the increases in the number of users did not in general compensate for the reduction in inpatient users. It has been suggested that the shifting of treatment settings is what enables a MBHC organization to maintain both access to care, and the quality of care, while reducing overall costs. Further analysis on enrollee level data will be required to understand the implications for access and quality of care.

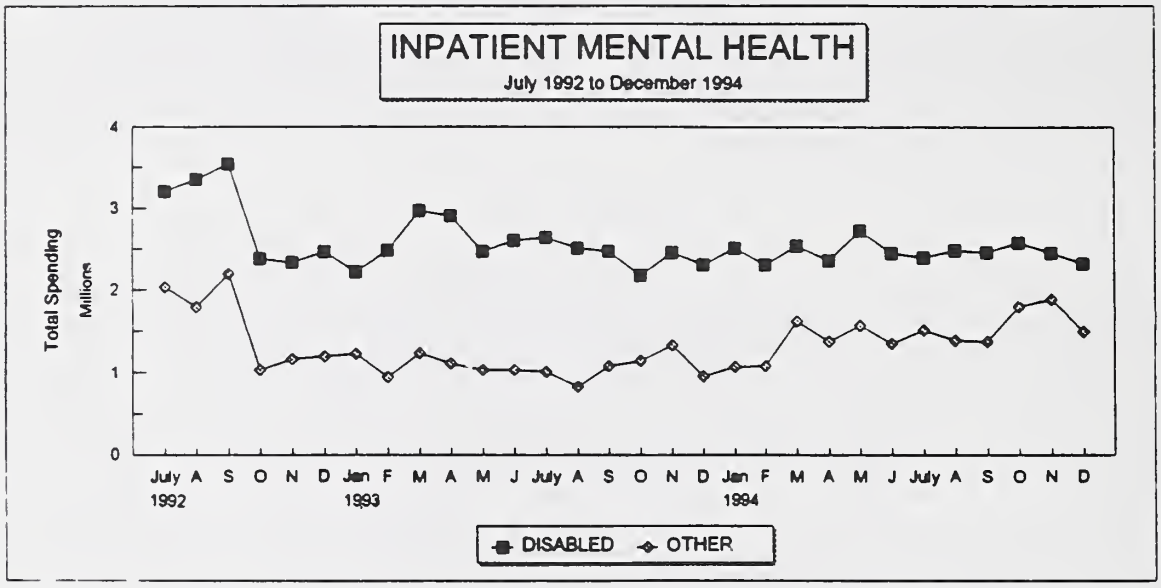
Conclusions

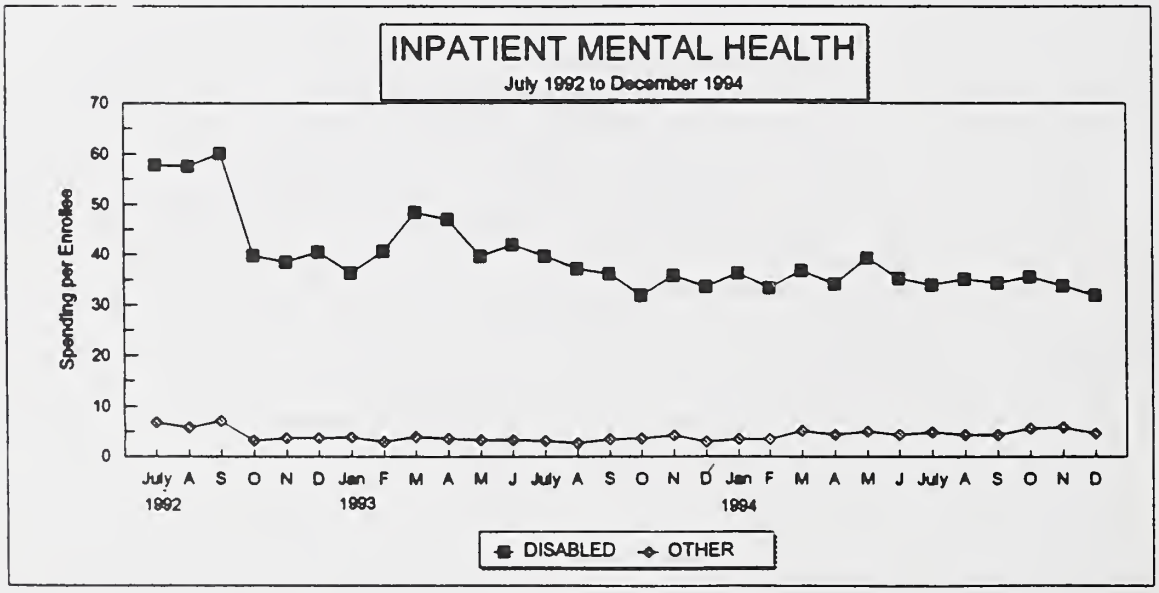
We found that at least 20 percent of Medicaid managed care enrollees receive mental health and/or substance abuse care via a behavioral healthcare carve-out program. Behavioral healthcare carve-out programs are expanding rapidly in both the private sector and under Medicaid. They involve a substantial range of patterns with respect to: organizational structure, ownership, financing arrangements, and approach to delivery of care. States begin with widely divergent commitments to behavioral healthcare, and are heterogeneous with regard to their governmental structures, behavioral health infrastructures, and political climate. It is therefore not surprising, given the lack of knowledge regarding what aspects of MBHC work best under specific circumstances, that we find great differences in approaches to MBHC. The willingness of States to experiment offers the opportunity, and underlies the need to learn about the consequences stemming from different models of MBHC.

The data from Massachusetts show the changes in treatment patterns that produced the substantial savings realized by the Commonwealth of Massachusetts. It is important to note two key factors: 1) the financial incentives for cost cutting under the Massachusetts risk contract were very weak; and 2) pre-MBHC utilization and costs were very high relative to other State Medicaid programs. The dramatic shift away from acute inpatient care for both mental health and substance abuse, was accompanied by increases in the use of lower intensity alternatives. In order to fully understand the detailed implications for access and quality of care, it is important to study the gap between the dramatic decreases in inpatient users and the increases in alternative settings at the level of the individual user. The incomplete nature of the shift across treatments is a troubling puzzle. It is nevertheless notable that many of the types of shifts in treatment undertaken through managed care are consistent with the prescriptions of many reformers of MH/SA care. It is also sobering to observe how quickly such monumental changes can occur. When they involve vulnerable populations such as those enrolled in Medicaid, the magnitude of such changes calls for caution in the application of the powerful tools of MBHC.

Figure 8.1. State of Massachusetts, 1992, 1993, and 1994.

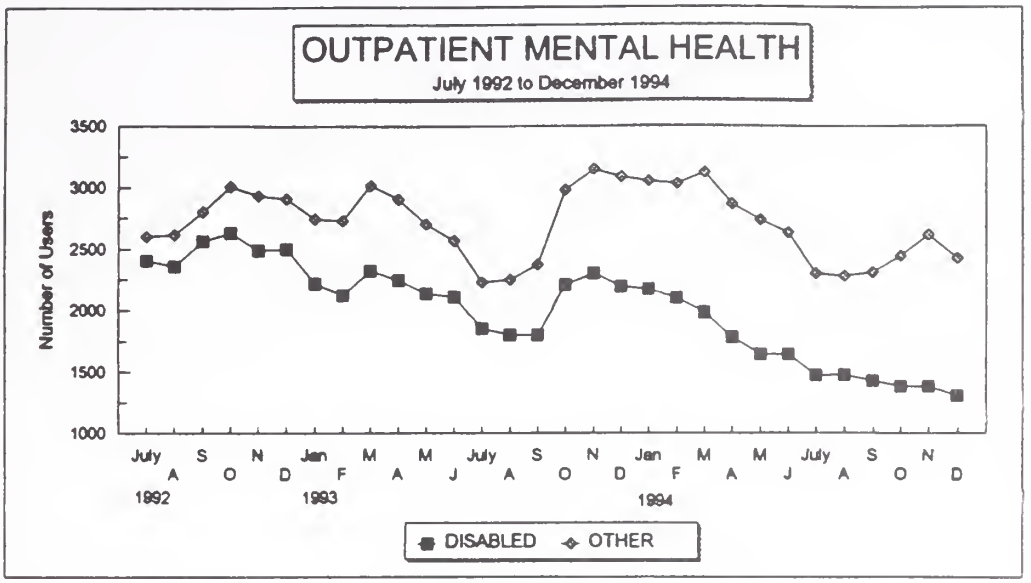


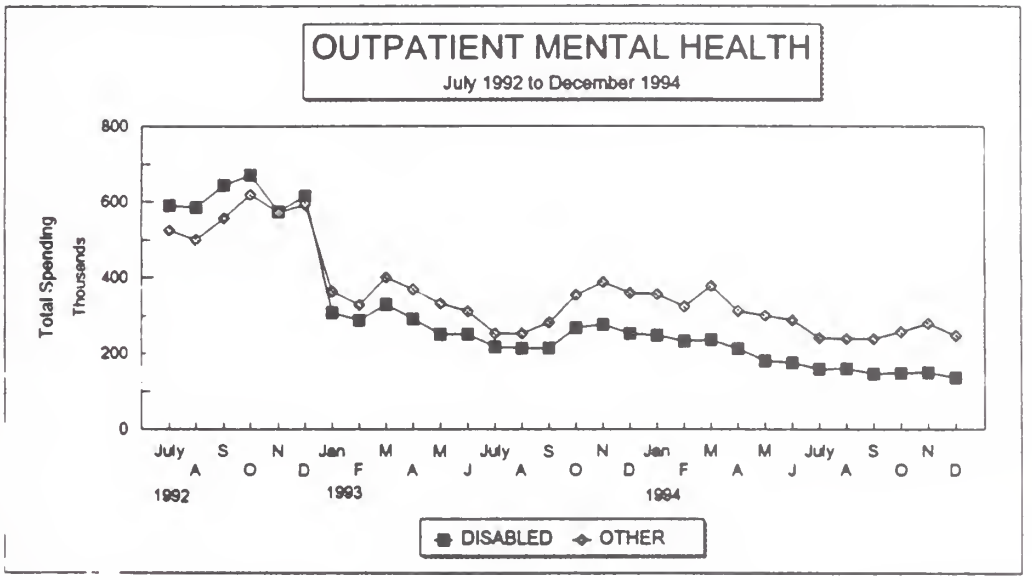


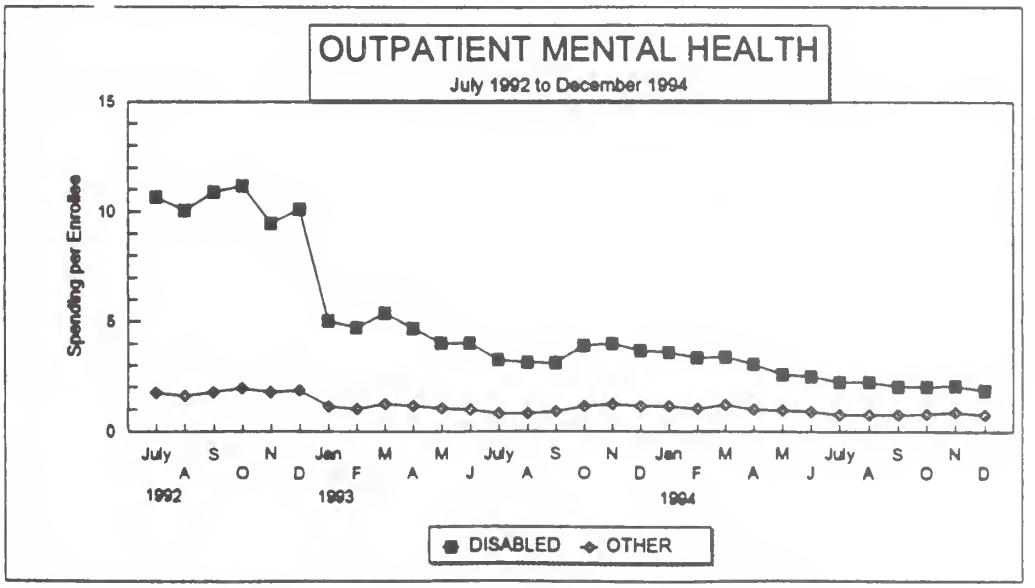


Data from the Massachusetts Division of Medical Assistance.

Figure 8.2. State of Massachusetts, 1992, 1993, and 1994.

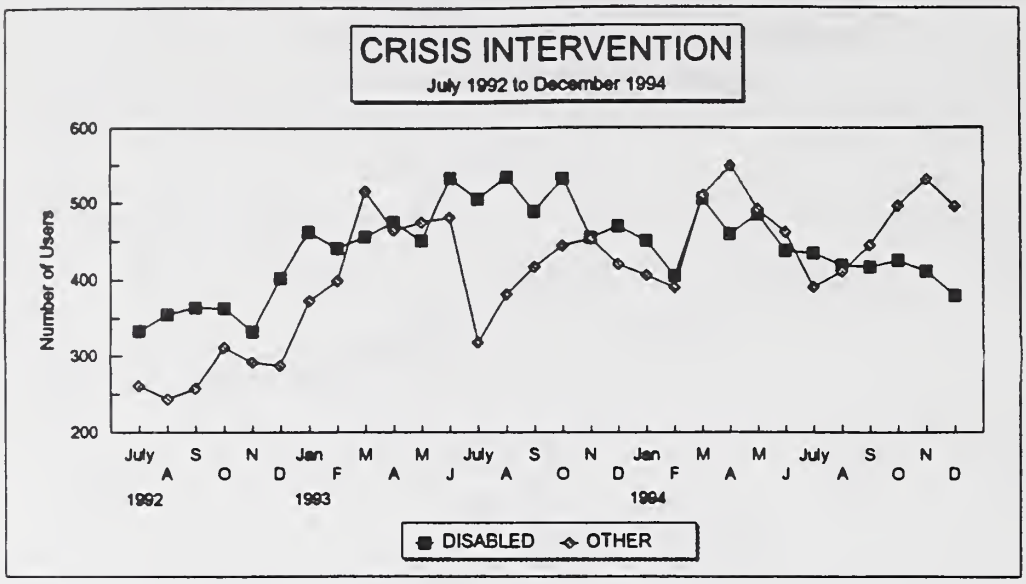


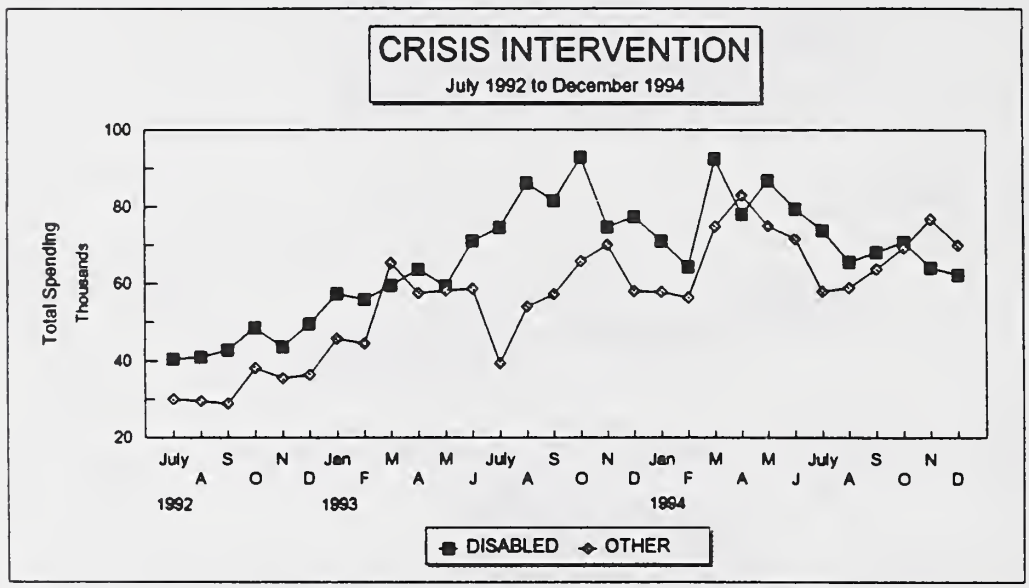


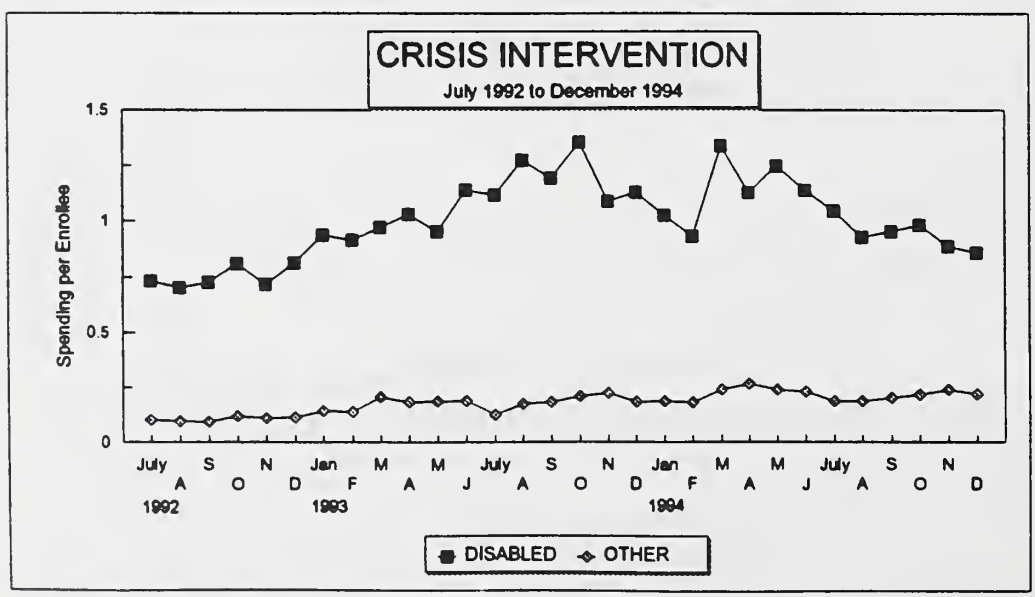


Data from the Massachusetts Division of Medical Assistance.

Figure 8.3. State of Massachusetts, 1992, 1993, and 1994.

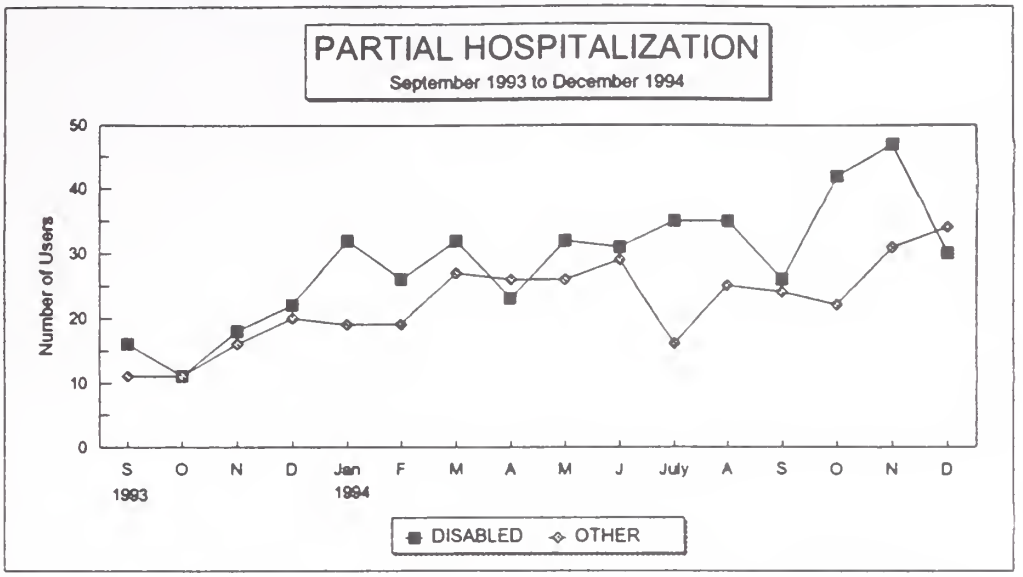


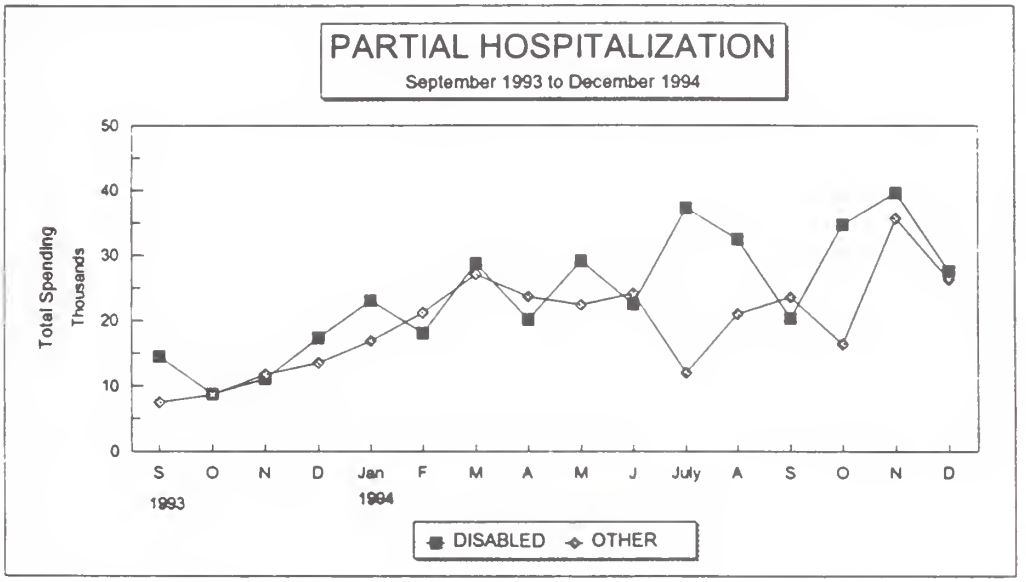


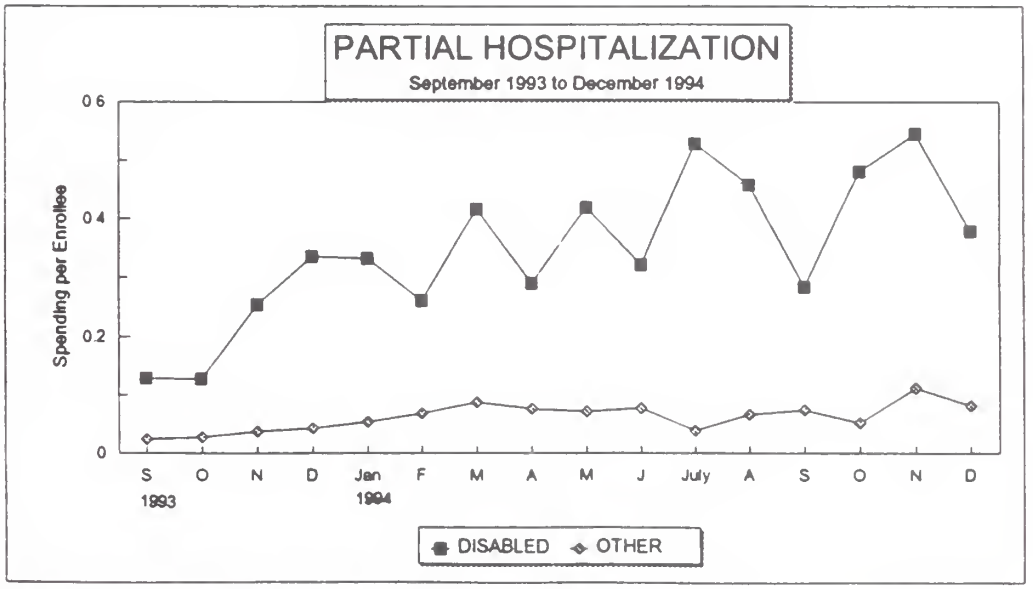


Data from the Massachusetts Division of Medical Assistance.

Figure 8.4. State of Massachusetts, 1993 and 1994.

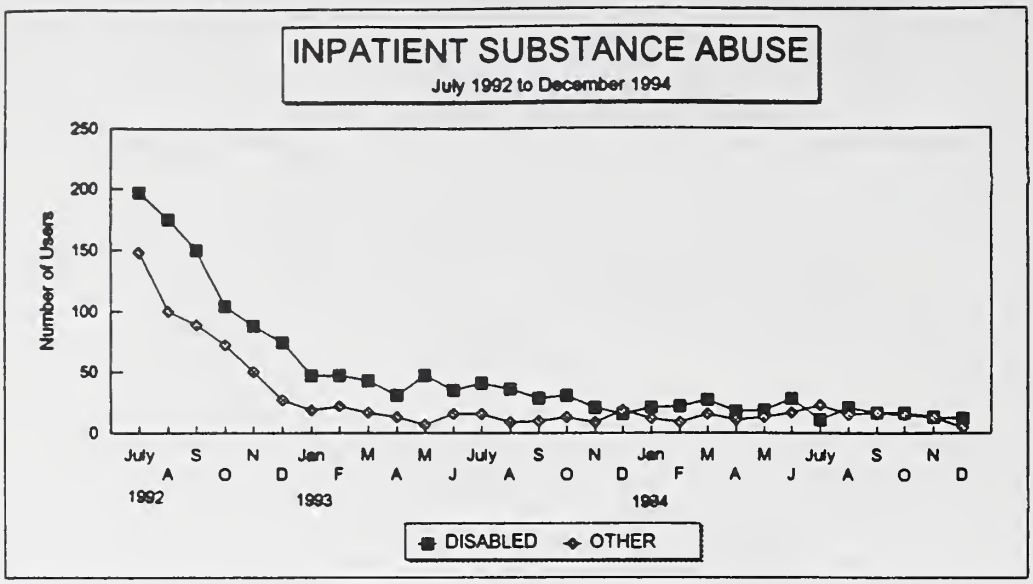


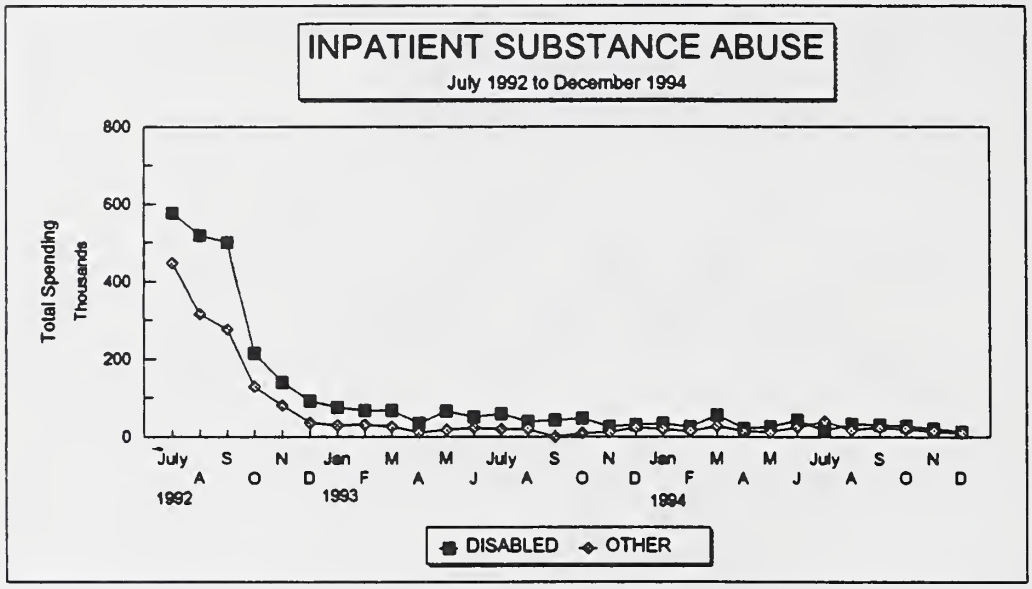


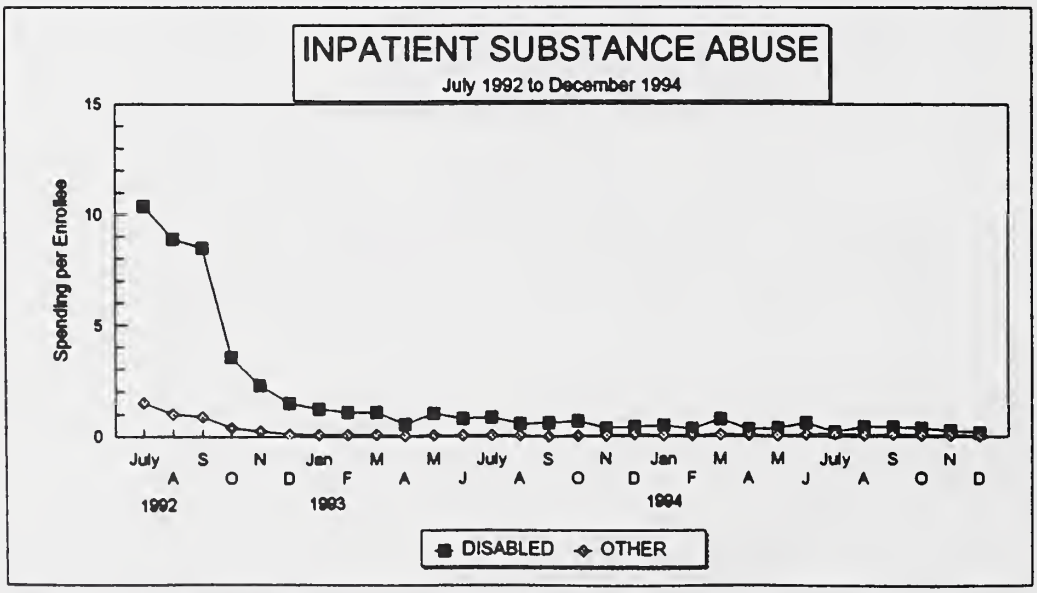


Data from the Massachusetts Division of Medical Assistance.

Figure 8.5. State of Massachusetts, 1992, 1993, and 1994.

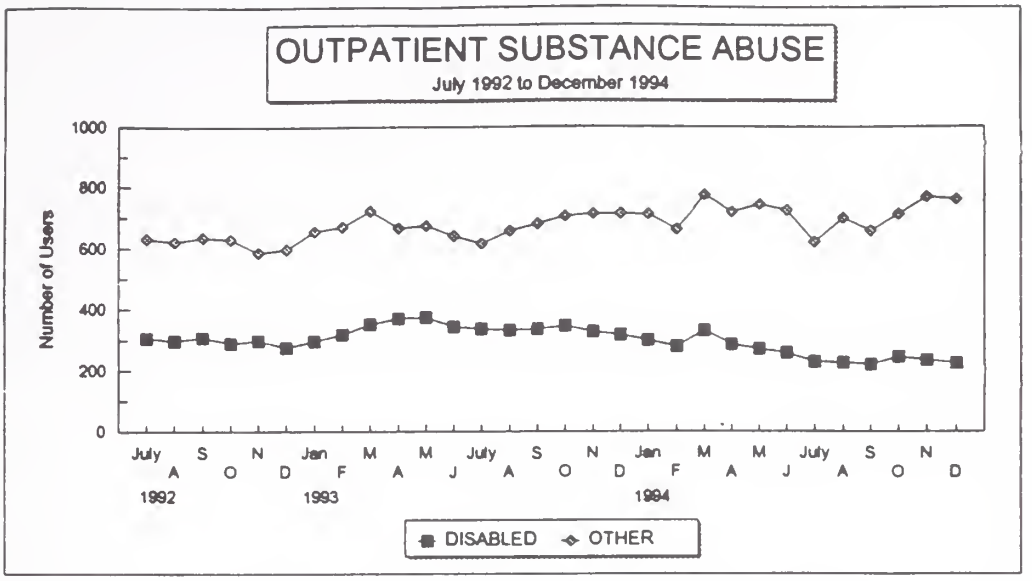


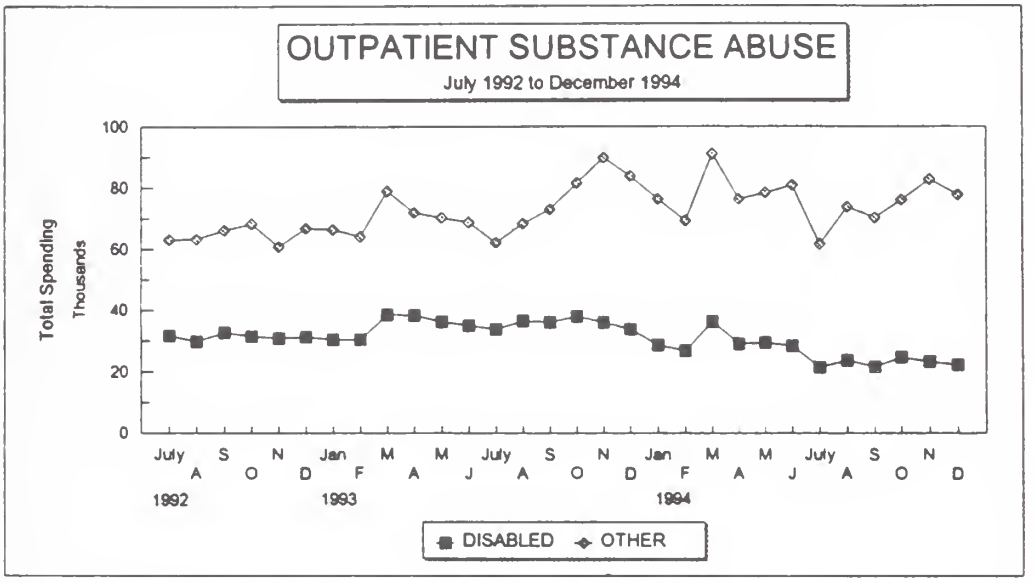


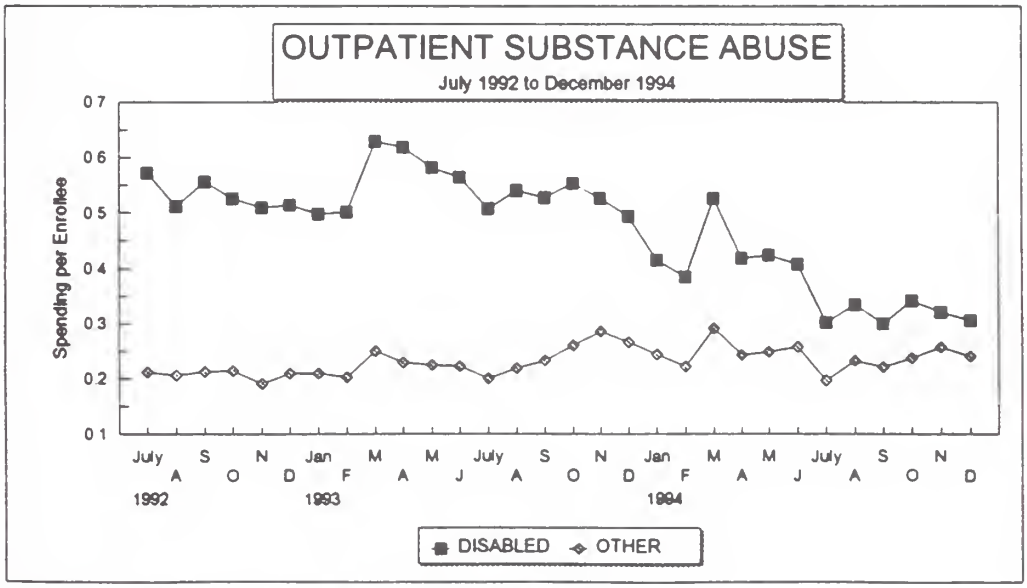


Data from the Massachusetts Division of Medical Assistance.

Figure 8.6. State of Massachusetts, 1992, 1993, and 1994.

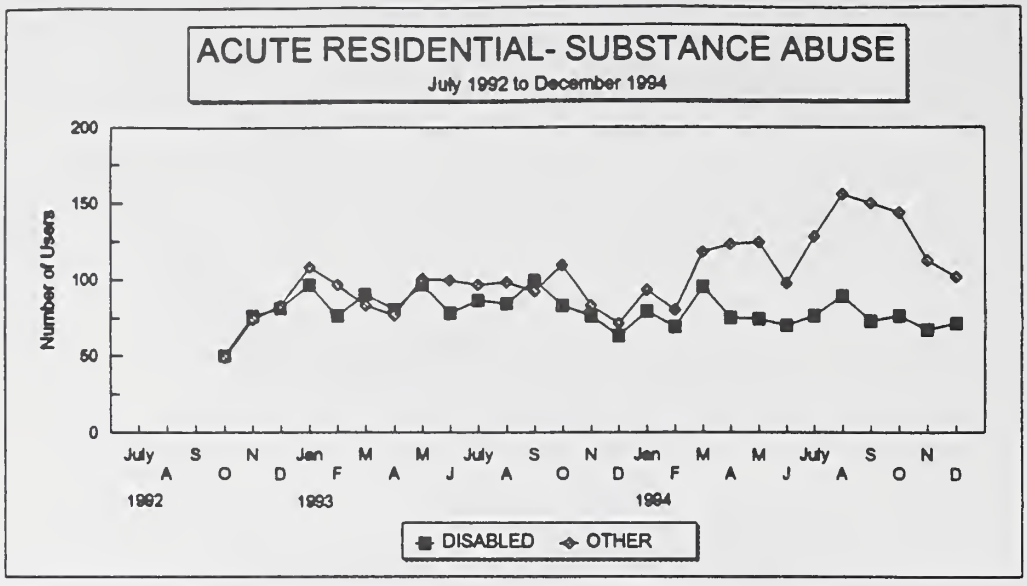


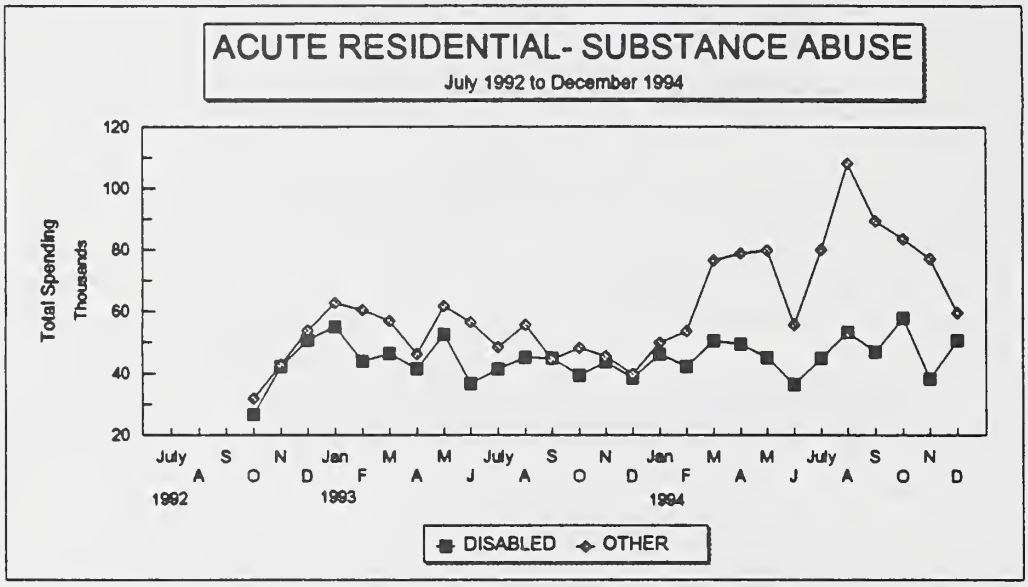


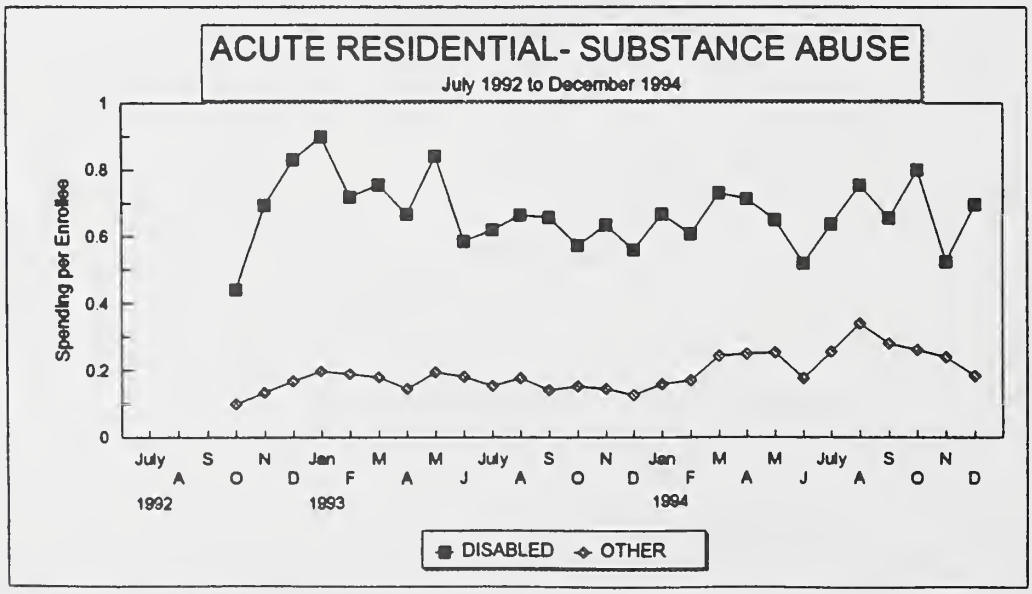


Data from the Massachusetts Division of Medical Assistance.

Figure 8.7. State of Massachusetts, 1992, 1993, and 1994.


ACUTE RESIDENTIAL- SUBSTANCE ABUSE
July 1992 to December 1994
Number of Users
200
150
100
50
0
July S N Jan M M July S N Jan M M July S N
A O D F A J A O D F A J A O D
1992 1993 1994
DISABLED OTHER




ACUTE RESIDENTIAL- SUBSTANCE ABUSE
July 1992 to December 1994
Spending per Enrollee
1
0.8
0.6
0.4
0.2
0
July S N Jan M M July S N Jan M M July S N
A O D F A J A O D F A J A O D
1992 1993 1994
DISABLED OTHER

Data from the Massachusetts Division of Medical Assistance.

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Chapter 9

Geographical Distribution of Organized Mental Health Services in 1983 and 1990

Harold F. Goldsmith, Ph.D.
Consultant: Applied Demography

Morton O. Wagenfeld, Ph.D.
Western Michigan University

Ronald W. Manderscheid, Ph.D.
Center for Mental Health Services

Dianne J. Stiles, M.A.
Consultant

Introduction

Effective planning of specialty mental health services requires that need for services be reasonably determined and compared with availability of such services. This paper takes an important first step toward providing the requisite information by presenting longitudinal information required to identify and understand changes in the geographical distribution and availability of specialty psychiatric services. Specifically, the paper provides information about

- service location, to distinguish areas with services from areas without services;
- service volume, to distinguish service-rich areas from service-deficient areas; and
- the relative rate of change in service availability, to distinguish areas where the future need for services are likely or unlikely to be met.

These questions will be answered by determining for both 1983 and 1990 the availability and volume of services in counties classified by their metropolitan, urbanization, and trade area statuses, and by determining the geographical access that counties with and without services have to counties with services.

It is well documented that metropolitan counties with big cities (highly urbanized areas) are not only likely to have specialty mental health services, but they are also the most likely to have a large volume of such services. By contrast, suburban metropolitan and rural nonmetropolitan counties (less urbanized areas) are least likely to have services (Goldsmith et al. 1994; Goldsmith et al. pending; and Wagenfeld et al. 1988).

The linking of service availability in a county to the geographical access to services, however, has not been fully explored. The present study takes into account the fact that in a market-oriented economy, cities and towns perform a standard set of retail and service functions, including the provision of specialty mental health services, for their own inhabitants and for those of the surrounding hinterland (Duncan et al. 1960; Goldsmith 1963; King 1984). The hinterland includes both an area socially and economically integrated with the city on a daily basis (the metropolitan community) and a more extensive trade area for the city's products (see Goldsmith et al. 1988b; Wagenfeld et al. 1988; King 1984). In general, geographical access to city services should be greatest in the daily market area of a city, followed by its trade area, and least in areas outside the trade area.

The nature of longitudinal trends that take into account county metropolitan, urbanization, and trade area status is not known. Unlike earlier cross-sectional analyses, this paper provides longitudinal information about the actual amount of change in specialty mental health services between 1983 and 1990 for different types of counties. Such information provides the basis for forecasting the directions that future changes in the availability and access to services are likely to take. This is the first time such information is available by county trade area status, as well as by county metropolitan and urbanization status. (An earlier paper provided data for county metropolitan and urbanization status, but not for trade area status [see Goldsmith et al. pending].) Because this is the first time longitudinal information is published by county trade area status, such information will be emphasized.

Methods and Procedures

County as the unit of analysis. County is used as the unit of analysis in this study because it is the only geographical unit for which large amounts of accurate data are available. It is also generally sufficiently small and homogeneous, with stable boundaries, to provide useful longitudinal information about urbanization, metropolitan and trade area characteristics (Hewitt 1989; Makuc et al. 1985; and Makuc et al. 1991).

For both 1983 and 1990, counties are classified on the basis of three dimensions: their 1980 metropolitan status, 1980 urbanization status, and 1980 trade area status. Metropolitan status is from the 1983 Beale Urbanization Scale (Beale 1983); and urbanization and trade area status are derived using the 1980 Health Demographic Profile System (Goldsmith et al. 1984). This means that the 1980 designations of county metropolitan, urbanization and trade area status are used to determine the distribution and access to services in both 1983 and 1990. Maintaining constant areas during the period analyzed permits an accurate determination of the changes that have occurred within the designated sets of counties. The operational procedures for determining these dimensions are described below:

- Metropolitan status. The 1980 metropolitan status of counties was based on the 1983 revision of the 1980 census designations (Beale 1983). Since the revisions are derived from an analysis of the 1980 decennial census data, they are designated as 1980 metropolitan areas. Counties are designated as metropolitan counties if they are socially and economically integrated on a daily basis with a large city, generally a city or built-up area of 50 thousand or more. Counties not socially and economically integrated with large cities on a daily basis are designated as nonmetropolitan counties (see Berry et al. 1970; and Hewitt 1989).

- Urbanization status. Urbanization status of a county was defined in terms of the Bureau of the Census definition of a place as urban. A place is urban if it has a population of at least 2,500 or is part of a densely settled area around a city of 50,000 or more. All other persons live in rural areas (see Beale 1983; Goldsmith et al. 1988a). Level of county urbanization is indexed by the size of its 1980 urban population. For metropolitan counties, there are four urbanization categories: 250,000 or more urban residents, 50,000 to 250,000 urban residents, 20,000 to 50,000 urban residents, and below 20 thousand urban residents. For nonmetropolitan counties, there are three categories: 20,000 or more urban residents (an urbanization category approximating the 20,000 to 50,000 urban resident category for metropolitan areas), 2,500 to 20,000 urban residents, and under 2,500 urban residents (a category that approximates totally rural nonmetropolitan counties). It should also be noted that the metropolitan category, "under 20,000 urban residents," is approximated for nonmetropolitan areas by combining the two least nonmetropolitan urbanization categories.

- Trade area status. In this study, a trade area is defined as a multicounty region in which the resident population utilizes the services available within the region to the relative exclusion of services from other areas (see Goldsmith et al. 1988b). Stated differently, the resident populations

of trade areas should have relatively easy geographical access (generally in less than 60 minutes) to the services available in the counties of the trade area, particularly the counties containing the largest cities of the trade areas (King 1984). In this study, the five digit labor market areas (LMAs) developed by USDA Regional Project S-184, in cooperation with the USDA Agricultural and Rural Economy Division (see Tolbert and Killian 1987; and Tolbert 1989), are used to approximate trade areas. LMAs represent networks of counties that are linked together by commuting patterns and collectively have populations of 100,000 or more. Counties with commuting links are grouped together so that the magnitude of their exchange of commuters is maximized (Tolbert and Killian 1987). Assuming that intercounty journey to work patterns are highly correlated with the use of retail goods and other services (see Berry et al. 1970; Fox and Kumar 1964), then the network of commuting patterns that constitute the LMAs should approximate the outer boundaries of a region in which a population is able to carry out its trade area activities.

LMAs should not be confused with metropolitan areas. Unlike metropolitan areas, LMAs are not required to meet strict size and density or commuting thresholds that index daily social and economic integration with large cities. Consequently, LMAs are larger and can include both metropolitan and nonmetropolitan counties.

Since large cities are expected to have larger trade areas than smaller cities and towns, a trade area classification has been developed that designates counties as being part of a 1980 metropolitan or a 1980 nonmetropolitan trade area. A 1980 metropolitan trade area contains at least one 1980 metropolitan area, while a 1980 nonmetropolitan trade area does not. Further, 1980 metropolitan trade areas are classified into major metropolitan trade areas (the largest metropolitan areas in the trade area has a population of at least 1 million persons), medium metropolitan trade areas (the largest metropolitan areas in the trade area has a population of 250,000 to 1 million persons), and small metropolitan areas (the largest 1980 metropolitan area in a trade area has a population of under 250,000 persons) (see Bloomquist, 1990; and Tolbert and Killian 1987 for similar designations). It should be recognized that, as defined, metropolitan trade areas can contain a number of metropolitan areas of different sizes and may contain nonmetropolitan counties as well. Nonmetropolitan trade areas are classified into two types: More urbanized nonmetropolitan trade areas (those that contain at least one county that has a sizable town [an urban population of 20,000 or more]) and less urbanized nonmetropolitan trade areas (those that do not contain a county with a sizable town).

Specialty mental health organizations. The data on mental health organizations presented for the two periods are from two sources: the 1983 and 1990 Inventories of Mental Health Organizations (Manderscheid et al. 1986; Redick et al. 1986, 1994), and the 1983 and 1990 Mental Health Directories (NIMH 1983 and 1990). Earlier studies were based on the geographical location of a master specialty mental health organization (one that reports information for its own activities, as well as for components it operates at different addresses) (Goldsmith, Henderson, and Manderscheid 1988; Goldsmith, Stiles, et al. 1988a; Goldsmith, Wagenfeld, and Stiles 1994; and Wagenfeld 1988, 1993). Unlike earlier work, this paper is based on the locations of all organizations (both masters and components). This was accomplished by using the 1983 and 1990 Mental Health Directories. The 1983 directory identified organizations that were likely to provide any specialty mental health services, as well as overnight and/or inpatient services. In addition to the information contained in the 1983 directory, the 1990 directory permitted the identification of organizations that provided ambulatory services. Only those organizations whose master facility was included in the final Inventory for 1983 and 1990 were included in this analysis. The latter step was necessary to guarantee that a facility met the criteria of being a specialty mental health organization in either year. Inventories, but not the directories, were critically checked to determine if the organization fit the definition of the National Institute of Mental Health in 1983 and 1990 (Redick et al. 1986, 1994). These two definitions were comparable.

Service availability and volume. The principal variable used in this paper to index the extent to which specialty mental health services are available in a county is the presence of any services, overnight services, or inpatient services (i.e., the percent of counties with such services). The variable used to index the volume of services is the average number of any, overnight, and inpatient organizations in a county (see Goldsmith et al. 1988a; Goldsmith et al. 1994; and Wagenfeld et al. 1988, 1993).

In earlier studies, the median number of psychiatric beds was used to estimate the volume of overnight services available in a county. This is reasonable if an analysis is restricted to overnight or inpatient services, since the components of mental health organizations providing these services tend to be in the same county as their master facility. Unfortunately, the same condition does not hold for ambulatory services. Since the vast majority of organizations are ambulatory, it also does not hold for all services combined (see Goldsmith, Henderson, and Manderscheid 1988; and Goldsmith et al. 1994).

Results

Service availability. Figures 9.1 and 9.2 present the information necessary to determine for 1983 and 1990 the distribution of counties with any specialty mental health services by trade areas status, as well as the urbanization and metropolitan statuses of counties. (See also appendix tables 9.1 and 9.2, p. 229).

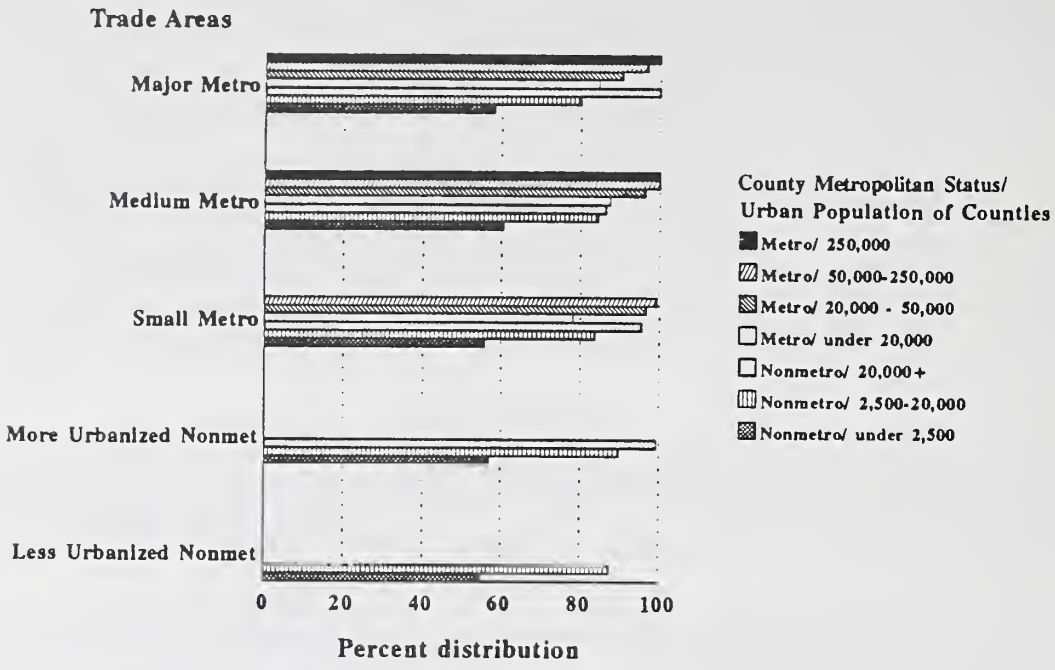
Several things are clear from an examination of these tables. Not only did the majority of counties have some services in both 1983 and 1990 (82.3 percent and 83.3, respectively), but the difference in the percentages between the two years is small. Equally important, service availability generally declines as one goes from major metropolitan trade areas to less urbanized nonmetropolitan trade areas (from 87.4 percent to 74.8 percent with services in 1983, and from 89.9 percent to 75.0 percent with services in 1990), and within trade areas and metropolitan status, as one goes from the more urbanized counties to the less urbanized counties. Thus, in 1983, virtually all the metropolitan counties with large cities (urban population of 50,000 or more), or sizable towns and nonmetropolitan counties with sizable towns were likely to have some specialty mental health services. Services were least likely to be found in metropolitan counties with urban populations under 20,000 (84.8 had some services) and nonmetropolitan counties with urban populations under 2,500 (56.4 percent had some services).

As noted above, substantial growth in the percent of counties with some services did not take place between 1983 and 1990. In fact, the percentages for the most rural counties (counties in the less urbanized nonmetropolitan trade areas with urban population under 2,500) declined slightly. Illustratively, 95.1 percent of the metropolitan counties and 78.4 percent of the nonmetropolitan counties had some services in 1983. The corresponding percentages for 1990 were 95.7 and 79.5. Further, 54.9 percent of the most rural nonmetropolitan counties had some services in 1983. The corresponding percentage was 52.0 in 1990.

Because the vast majority of organizations providing any service are providing ambulatory, rather than overnight or inpatient services (Goldsmith, Wagenfeld et al. 1994), ambulatory services should have a distribution similar to that of all services.

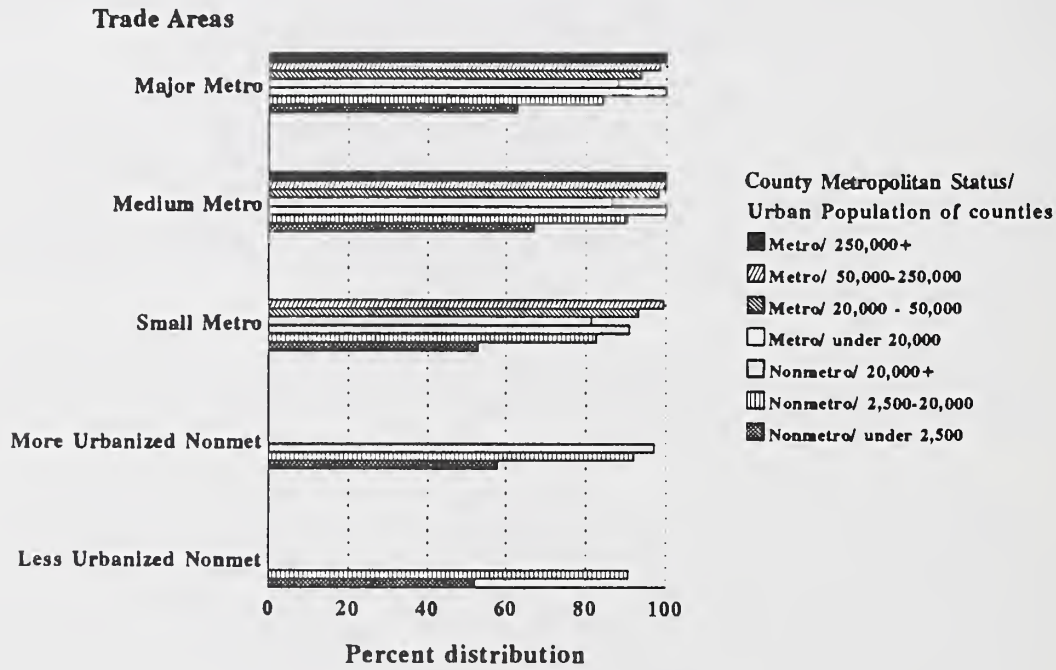
While the pattern for counties with some ambulatory services can be inferred from the percentage distribution of any services by county urbanization, metropolitan and trade area status, the same inference cannot be made for overnight and inpatient facilities. In fact, the percentage distributions of overnight services by county metropolitan, urbanization, and trade area status are very different from those for any services or ambulatory services (see figures 9.3 and 9.4, or appendix tables 9.3 and 9.4). Overnight services were relatively uncommon in both 1983 and 1990 (25.0 and 35.3 percent of the counties has such services in 1983 and 1990, respectively). Equally important, a large difference exists between metropolitan and nonmetropolitan trade areas in the percentage of counties with any overnight services, and, within trade areas, by county metropolitan and urbanization status. In 1983, nearly 36 percent of the

Figure 9.1 Percent of counties with any mental health services by metropolitan (metro), urbanization, and trade area (TA) status of counties* : 1983



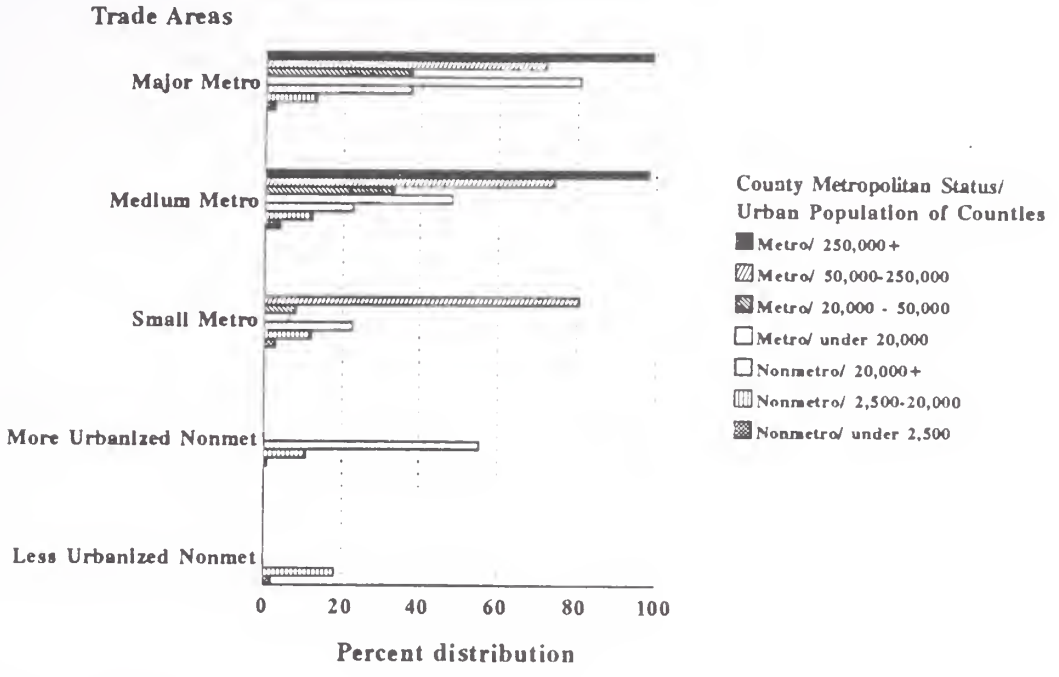
*See text for definitions.

Figure 9.2 Percent of counties with any mental health services by metropolitan (metro), urbanization, and trade area (TA) type of counties*: 1990



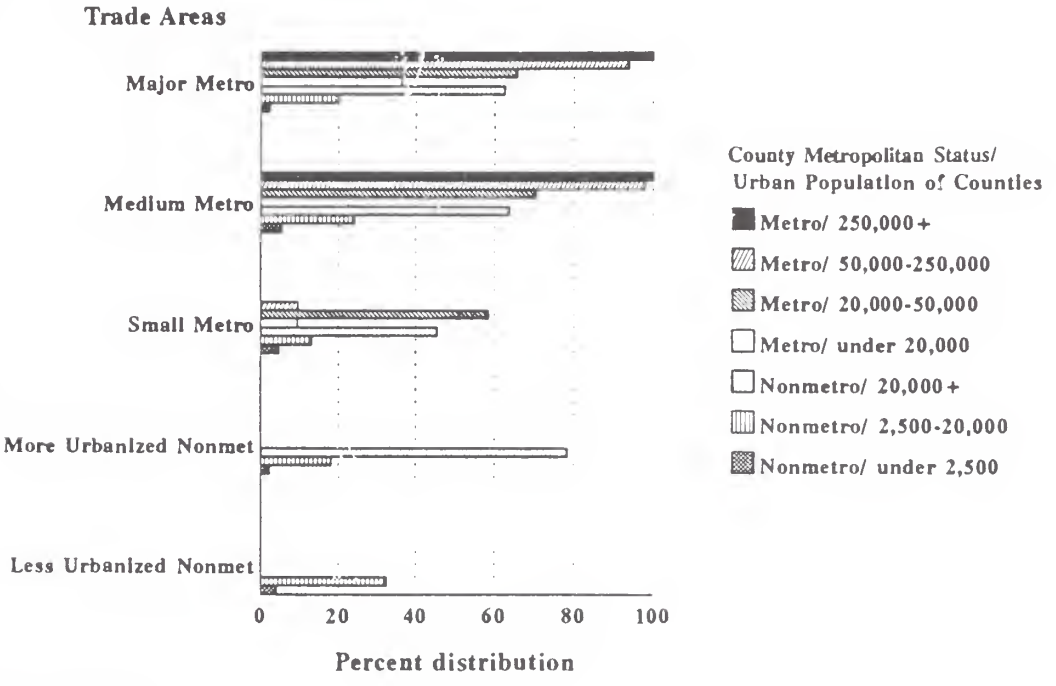
*See text for definitions.

Figure 9.3 Percent of counties with any overnight mental health services by metropolitan status, urbanization, and trade area type of counties*: 1983



*See text for definitions

Figure 9.4 Percent of counties with any overnight mental health services by metropolitan status, urbanization, and trade area type of counties*: 1990



*See text for definitions.

metropolitan trade areas counties had overnight services (nearly 48 percent in major metropolitan trade areas), compared to 16 percent of the counties in nonmetropolitan trade areas (only 12.4 percent of the least urbanized nonmetropolitan trade areas). Further, controlling for trade area type, almost all the metropolitan counties with urban populations of 250,000 or more had overnight service, and over 72 percent of the metropolitan counties with urban populations of 50,000 or more (compared to generally less than 50 percent of the remaining counties). The least urbanized metropolitan counties, particularly those in the smaller metropolitan trade areas, and the least urbanized nonmetropolitan counties had the smallest percentage of overnight services (under 8.1 percent of these counties in medium or small metropolitan trade areas and 4 percent or less for nonmetropolitan counties with urban populations under 2,500).

In 1990, while the general pattern for the distribution of any overnight services was very similar to that of 1983, significant growth in the percent of counties with overnight services did occur during the reporting period, particularly among the more urbanized metropolitan and nonmetropolitan counties. By 1990, controlling for trade area, in addition to the most urbanized metropolitan counties, virtually all of the metropolitan counties with big cities had some overnight services, and, with the exception of small metropolitan trade areas, over 60 percent of the metropolitan and nonmetropolitan counties with sizable towns had some overnight services. For these counties, the percentage was greatest for those in the more urbanized nonmetropolitan trade areas. For the latter counties, the percentage reached 78 percent, an increase of 22.9 percentage points during the reporting period. A large increase (24.3 percentage points) also occurred for the most urbanized counties of the less urbanized nonmetropolitan trade areas. However, even with this increase in overnight services, only 32.4 percent of these counties had any overnight services in 1990.

In both 1983 and 1990, inpatient services were considerably less common than either any or overnight services (see appendix tables 9.5 and 9.6). In 1983, only 15 percent of the counties had such services (24.1 percent in metropolitan trade areas, and 7.4 percent in nonmetropolitan trade areas). By 1990, the respective figures were 29.2, 41.7 and 16.6. While the percent of counties with inpatient services is less than that for any or overnight services, the general patterns, taking into account county metropolitan, urbanization and trade area status, are similar. Among metropolitan trade areas, inpatient services decline as one goes from major metropolitan trade areas to small metropolitan trade areas, and, within trade areas, as one goes from the more urbanized counties to the less urbanized counties. Thus, almost all the metropolitan counties with urban population of 250,000 or more had some inpatient services in 1983; by 1990, almost all metropolitan counties with urban population of 50,000 or more had such services. Further, in 1983, under 26 percent of the counties in metropolitan trade areas with sizable towns had inpatient services. This increased to 50 percent for the metropolitan counties, and 59 percent for the nonmetropolitan counties with sizable towns by 1990. For the remaining metropolitan and nonmetropolitan counties in these trade areas, inpatient services were rare (generally under 9 percent).

Among counties in nonmetropolitan trade areas, the more urbanized nonmetropolitan trade areas, particularly those with sizable towns, experienced the greatest increase in inpatient services during the reporting period. In 1990, the percentages were 22.9 and 67.5, respectively. This represents a percentage-point increase of 14.0 overall and 44.6 for the counties with sizable towns. The percent of counties with inpatient services in the least urbanized nonmetropolitan trade areas increased from 5.7 in 1983 to 13.5 percent in 1990 (an increase of 7.8 percentage points). The most urbanized counties in these trade areas (counties with small towns), also experienced a percentage point increase of approximately 12. However, inpatient services in the counties with small towns remained relatively rare (21.1 percent had inpatient services in 1990).

While increases in the percentage of counties with overnight or inpatient services was greater in counties located in metropolitan than nonmetropolitan trade areas, the rate of growth followed a different pattern. Generally the rate of growth was larger for counties in nonmetropolitan trade areas than for counties in metropolitan trade areas. Illustratively, for overnight services the percent change during the

reporting period was 66.3 for counties in nonmetropolitan trade areas, as compared to 31.6 for counties in metropolitan trade areas. The corresponding figures for inpatient services were 152.2 and 73.0 percent growth, respectively.

Volume of services. The volume of services, as indexed by the average number of different organizations with specialty mental health services per county, is the subject of this section. Information necessary to determine the volume of services by county trade status is presented in figures 9.5, 9.6, 9.7, and 9.8, and appendix tables 9.7, 9.8, and 9.9. These figures and tables present the distribution of the average number of organizations per county, controlling for county urbanization, metropolitan, and trade area status. They show that for both 1983 and 1990, more organizations, most likely ambulatory services, are likely to be found in the most urbanized metropolitan counties, particularly those in major metropolitan trade areas. Further, the decline in the average number of organizations is steep as one goes from the major metropolitan trade areas to the less urbanized nonmetropolitan trade areas, and, within trade areas, from most urbanized counties to the less urbanized. It is noteworthy that these are the patterns previously identified for the percent of counties with any services. The average number of organizations in a major metropolitan trade areas was 11.8 in 1983 (15.7 in 1990), approximately 2.5 times that of medium metropolitan trade areas, and at least 4.4 times that of the remaining trade areas in both 1983 and 1990. In 1983, counties with urban populations of 250,000 or more, had an average 38.6 organizations in major metropolitan trade areas, and 21.2 in medium metropolitan trade areas. These figures are in contrast to between 6.3 and 8.2 organizations per county for counties in metropolitan trade areas with urban populations of 50,000 to 250,000, and fewer than 4 for the remaining metropolitan and nonmetropolitan urbanization categories. The fewest organizations are found in the least urbanized nonmetropolitan counties. These counties had less than one organization per county in 1983.

While the average number of organizations per county increased between 1983 and 1990, the overall pattern for 1990 remained similar to that described for 1983. The largest growth occurred for the most urbanized metropolitan counties in major metropolitan areas. These counties experienced an increase of 12.5 organizations per county, compared to an overall increase of only 1.1 organization per county (3.3 for metropolitan counties and 0.4 for nonmetropolitan counties).

The average number of organizations offering overnight and inpatient services per county (see figures 9.7 and 9.8, and appendix table 9.8, for overnight, and appendix table 9.9 for inpatient services), generally follow the same pattern as that for any organization--steep declines exist for the average number of overnight and inpatient services as one moves from the major metropolitan trade area counties to the less urbanized nonmetropolitan trade area counties. Similarly, within trade areas, the same pattern is observed as one goes from the more urbanized to the less urbanized counties. However, the number of overnight and inpatient services is considerably smaller than the average for any organization. Illustratively, the most urbanized metropolitan counties in major metropolitan areas had an average of 6.7 overnight services and 3.1 inpatient services in 1983, and those in medium metropolitan trade areas of 4.3 and 2.1, respectively. The corresponding figures for 1990 were 15.6 and 10.4 for counties in major metropolitan trade areas, and 9.2 and 6.1 for counties in medium metropolitan trade areas, respectively. Within metropolitan trade areas, for the metropolitan counties with urban populations of 50,000 to 250,000, the average number of overnight services per county was between 1.4 and 1.6 in 1983, and between 3.2 and 3.7 in 1990. The corresponding averages for inpatient services were between 0.6 and 0.9 for 1983 and 2.0 and 2.6 for 1990. For remaining metropolitan and nonmetropolitan counties, the average number of overnight or inpatient services was less than one in both 1983 and 1990.

Geographical access to services. Given that in both 1983 and 1990, the most urbanized metropolitan counties not only were very likely to have organizations offering ambulatory, overnight and inpatient services, but also a large volume of them, it is likely that all the residents of these counties, as well as the residents of the major and medium metropolitan trade areas that included these counties, had relatively easy geographical access to all types of specialty mental health services. This means that the residents of major or medium metropolitan trade areas, an estimated 160 million persons in 1980, and 178 million in

Figure 9.5 Average number of specialty mental health organizations per county by metropolitan status, urbanization, and trade area type of counties: 1983

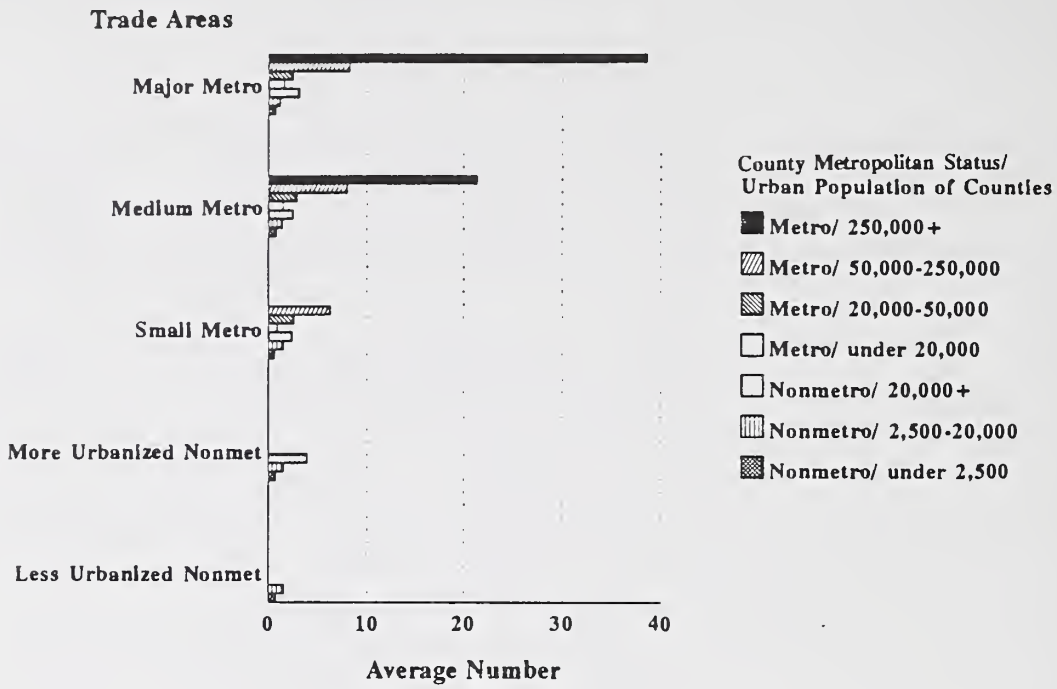


Figure 9.6 Average number of specialty mental health organizations per county by metropolitan status, urbanization, and trade area type of counties: 1990

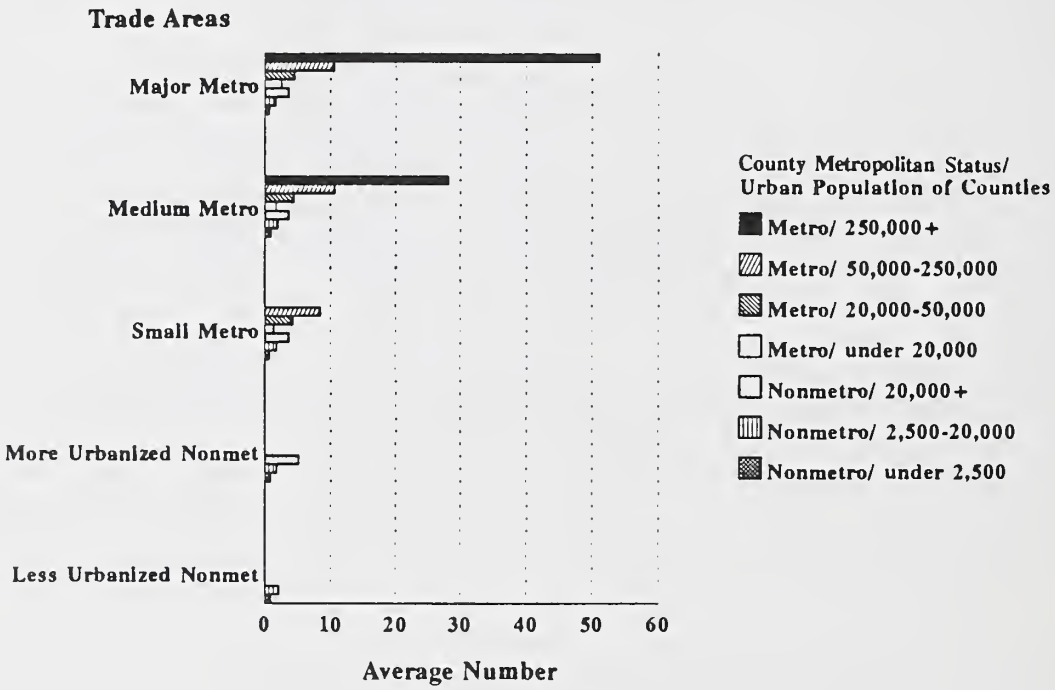


Figure 9.7 Average number of overnight specialty mental health organizations per county by metropolitan status, urbanization, and trade area type of counties: 1983

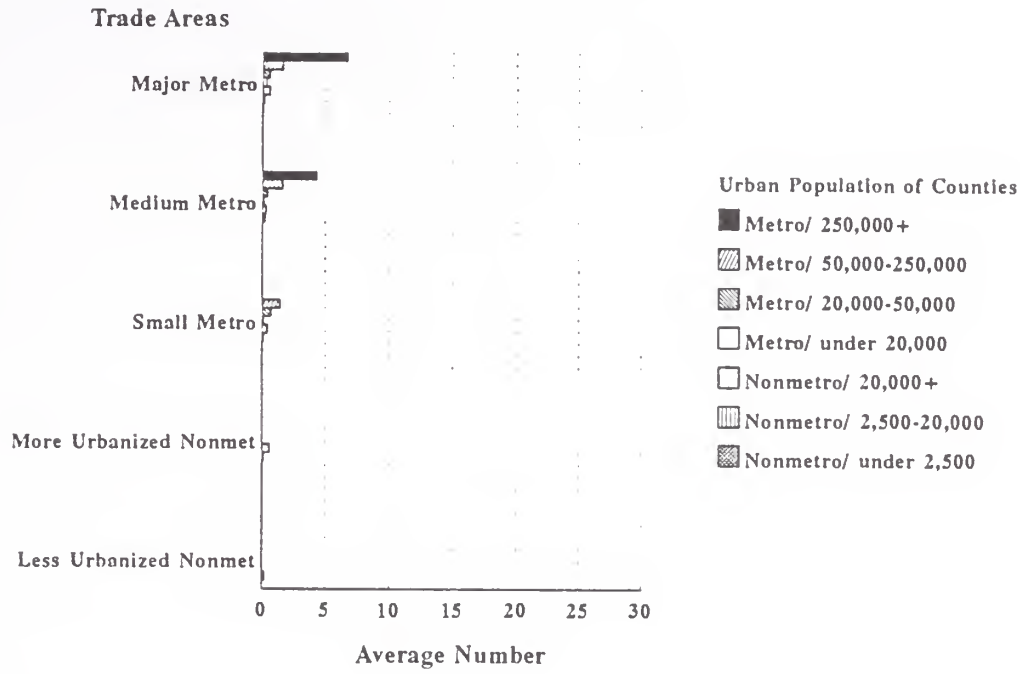
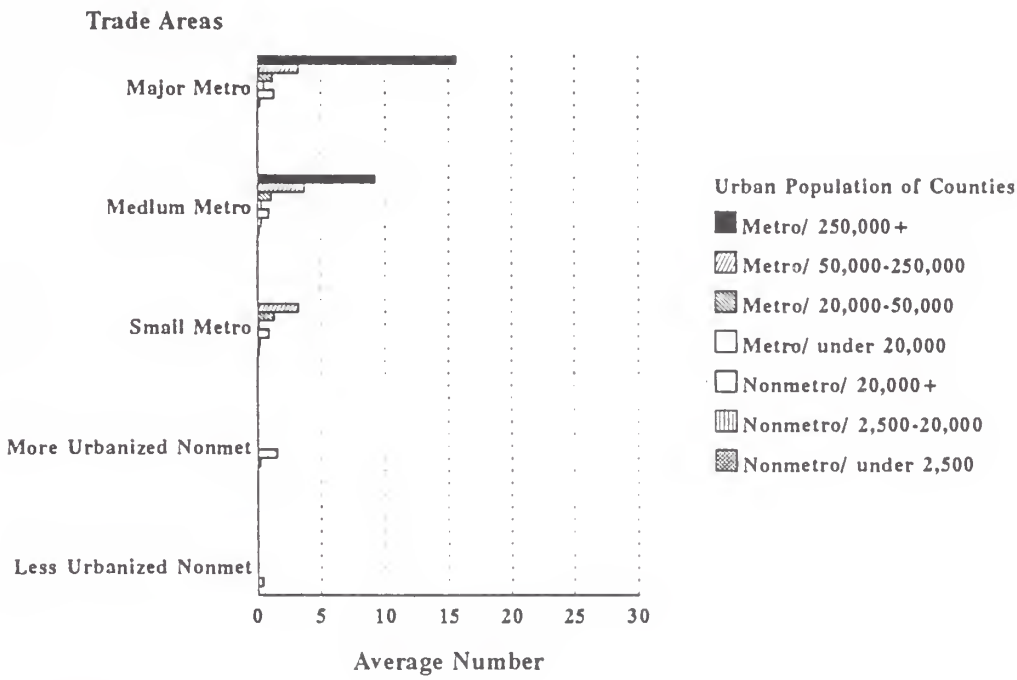


Figure 9.8 Average number of overnight specialty mental health organizations per county by metropolitan status, urbanization, and trade area type of counties: 1990



1990 (approximately, 70 percent and 72 percent of the population of the United States in 1980 and 1990, respectively) were likely to have geographical access to a variety of services. Such access was also enjoyed by an estimated 8 million persons (15 percent of the nonmetropolitan population), living in the nonmetropolitan counties of major or medium metropolitan trade areas in 1980. For 1990, the corresponding figure would be about 9 million, or 15 percent of the 1990 population in the 1980 nonmetropolitan counties.

As the residents of major or medium metropolitan trade areas, both the metropolitan and nonmetropolitan residents of small metropolitan trade areas (approximately 28 million persons in 1983, and 29 million persons in 1990, or 12 percent of the population in both years) had geographical access to all types of specialty mental health services. In part, this occurred because the most urbanized metropolitan counties of these trade areas (counties with urban populations of 50,000 to 250,000), had organizations offering some ambulatory, overnight, and inpatient services in both 1983 and 1990, and because many of the more urbanized nonmetropolitan counties in these trade areas had such organizations.

Like the nonmetropolitan residents of metropolitan trade areas, the residents of the more urbanized and the less urbanized nonmetropolitan trade areas (an estimate of 40 million persons in 1980, and 42 million in 1990 [approximately 17 percent of the population of the United States in both years]), had some geographical access to ambulatory services. This is because the vast majority of the most urbanized counties of these trade areas had some services in both 1983 and 1990, and because most of the remaining counties also had some services, services that were most likely ambulatory.

Overnight services were likely to be available to the residents of the more urbanized nonmetropolitan trade areas. This reflects the fact that the majority of the most urbanized counties in these trade areas had organizations offering overnight services during the reporting period. This situation held for inpatients in 1990, but not 1983.

Unfortunately, similar statements cannot be made about the geographical accessibility of overnight or inpatient services for the residents of the less urbanized nonmetropolitan trade areas. As noted previously, comparatively few of the counties in these trade areas, including the most urbanized counties, had organizations with overnight or inpatient services in either 1983 or 1990. Thus, the approximately 13 million residents of the less urbanized nonmetropolitan areas in 1983, or 14 million in 1990 (about 6 percent of the population in both years), did not have easy geographical access to overnight or inpatient services.

Summary and Conclusion

In this paper, we have used county-level data derived from the 1980 decennial census to formulate a classification that determined the metropolitan, urbanization, and trade area status of counties in 1980 and 1990. When this classification was merged with data from 1983 and 1990 on mental health services, the resulting data set provided the basis for answering key questions about the availability, volume, and change in specialty mental health services in counties.

The results showed that county metropolitan status, urbanization level, and trade area classification are very important for answering the stated questions. The trade area classification, moreover, is necessary to permit the identification of populations that are likely to have easy geographical access to services. Thus, as a consequence of considering not only the metropolitan status and urbanization levels of counties, but also their trade area type, the present analysis has provided a more complete specification than earlier work of the distribution of specialty mental health services, the relative geographical access of county populations to these services, and the changing patterns of service availability and access. The use of constant areas (the 1980 designations of county metropolitan, urbanization, and trade area status were used

for both 1983 and 1990) permitted longitudinal trends to be identified.

The results of these analyses are summarized below:

- **General pattern.** For both 1983 and 1990, as one moves from major metropolitan trade areas to less urbanized nonmetropolitan trade areas or, within trade areas, from the more to the less urbanized counties, the overall availability and volume of services decreases. This pattern holds for organizations offering ambulatory, overnight services, and inpatient services.

- **Availability of any service.** Within trade areas, except for the least urbanized nonmetropolitan counties, the vast majority of counties had some specialty mental health services (most likely ambulatory) in both 1983 and 1990. Equally important, over half of the least urbanized nonmetropolitan counties had some services in both reporting years. Very little change in the availability of any services occurred during the reporting period.

- **Volume of services.** Organizations, particularly those offering ambulatory services, are most likely to be found in the most urbanized metropolitan counties (an average of 32.3 per county in 1983), particularly in those counties in major metropolitan trade areas (an average of 38.6 in 1983). For the remaining counties, the average number of organizations is consistently less (no more than 8.2 in 1983, and 10.6 in 1990). The concentration of organizations in the most urbanized metropolitan counties increased substantially during the reporting period (an increase of a little more than 10 organizations per county). Elsewhere, the increase was no more than about two organizations per county.

- **Availability of overnight and inpatient services.** While both overnight and inpatient services were relatively uncommon in both 1983 and 1990 (35.3 and 29.2 percent of counties had organizations offering overnight and inpatient services in 1990, about a 10 percentage-point increase over 1983), the vast majority of the most urbanized metropolitan counties in major and medium metropolitan trade areas had overnight and inpatient services in 1983. By 1990, virtually all of the metropolitan counties with big cites had some overnight and inpatient services. In addition, with the exception of small metropolitan trade areas, over 60 percent of the metropolitan and nonmetropolitan counties with sizable towns had some overnight and inpatient organizations in 1990. The corresponding percentage for inpatient services was 50 percent that year.

- **Volume of overnight and inpatient services.** Only in the most urbanized metropolitan counties in major and medium metropolitan trade areas did the average number of organizations offering overnight services reach at least nine or more per county, and the number of organizations offering inpatient services, six or more per county in 1990. This represents increases of between four and ten organizations per county during the reporting period. Within trade areas, only in metropolitan counties with big cities, were the number of organizations offering overnight services between 3.2 and 3.7, and the number of organizations offering inpatient services between 2.0 and 2.6 per county in 1990.

- **Access to services.** The net result of the concentration of all types of services in the most urbanized metropolitan counties in major and medium metropolitan trade areas, was that the residents of these counties and the residents of the trade areas in which these counties were located had good geographical access to a large number of organizations offering ambulatory, overnight, and inpatient services, and, consequently, most likely a wide range and volume of services.

The residents of small metropolitan and more urbanized nonmetropolitan trade areas also had geographical access to all types of specialty mental health services. This is because the more urbanized

counties in these trade areas were likely to have the different types of services.

While the residents of the least urbanized nonmetropolitan counties had geographical access to ambulatory services (most counties had organizations offering these services), they did not have easy access to overnight or inpatient services (few of these counties had organizations with such services). Further, the number of organizations with ambulatory services to which the residents of these trade areas had access rarely exceeded one.

Several important conclusions can be drawn from the analyses presented. First, findings demonstrate that the entire population of the major and medium metropolitan trade areas (approximately 72 percent of the 1990 population), had geographical access not only to some ambulatory, overnight and inpatient services, but also to a large volume of such services. Findings also demonstrate that, unlike residents of the larger metropolitan trade areas, residents of small metropolitan and more urbanized nonmetropolitan trade areas (approximately 22 percent of the 1990 population of the United States), had geographical access to ambulatory, overnight, or inpatient services, although the volume of such services was not large.

Third, the findings also demonstrate that nearly 6 million 1990 residents of the less urbanized nonmetropolitan trade areas only had easy geographical access to ambulatory mental health services. In these trade areas, overnight and inpatient services were virtually nonexistent.

In closing, it should be emphasized that the travel patterns associated with overnight and inpatient services need to be evaluated for the residents of the less urbanized nonmetropolitan trade areas. It may well be that such travel tends to increase the length of stay of persons using overnight or inpatient services. This could occur because, compared to other clients, the staff of mental hospitals may be less willing to take a chance discharging patients who live a long distance from the hospital, particularly if a likelihood exists that the patient may have an acute psychiatric episode shortly after discharge. Such provider decisions could increase the costs of services to the residents of the less urbanized nonmetropolitan trade areas. It is also possible that the lack of geographical access to overnight and inpatient services may result in persons needing such services foregoing such care entirely. Of course, the reasonableness of these speculations needs to be assessed.

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Chapter 10

An Update On Human Resources in Mental Health

Brennan D. Peterson, B.S.; Joyce West, M.P.P.;
and Harold Alan Pincus, M.D.
American Psychiatric Association
Jessica Kohout, Ph.D.
American Psychological Association
Georgine M. Pion, Ph.D.
Vanderbilt Institute for Public Policy Studies
Marlene M. Wicherski
Research Consultant
Rita E. Vandivort-Warren, A.C.S.W.; Margaret L. Palmiter, Ph.D., A.C.S.W.
National Association of Social Workers
Elizabeth I. Merwin, Ph.D., R.N, FAAN; and Jeanne C. Fox, Ph.D., R.N., FAAN
Southeastern Rural Mental Health Research Center, University of Virginia, and
The Society for Education and Research in Psychiatric-Mental Health Nursing[1]
Tom W. Clawson, Ed.D.; and Kathryn K. Rhodes, Ed.S.
National Board for Certified Counselors
Rex Stockton, Ed.D.
Indiana University/American Counseling Association
John P. Ambrose, J.D.
American Association for Marriage and Family Therapy
Laura Blankertz, Ph.D.
International Association of Psychosocial Rehabilitation Services
Kevin P. Dwyer, M.A.; and Victoria Stanhope, M.A.
National Association of School Psychologists
Michael S. Fleischer, Ph.D.
Indiana University/Purdue University
Harold F. Goldsmith, Ph.D.; Michael J. Witkin, M.A., C.P.A.; Joanne E. Atay, M.A.;
and Ronald W. Manderscheid, Ph.D.
Center for Mental Health Services

Introduction

Late in 1987, research staff from the American Psychiatric Association, the American Psychological Association, the National Association of Social Workers, and representatives of professional psychiatric nursing formed a work group on human resources data with staff from the National Institute of Mental Health (Dr. Manderscheid). This work group had several major purposes:

- To identify common, core data that can be reported on human resources by each of the four core mental health disciplines.
- To prepare a chapter for *Mental Health, United States, 1990*, that presents and describes these data.
- To identify data gaps, and plan steps by which these gaps might be corrected.
- To improve survey comparability among the four core disciplines, so that the essential pool of common core data can be expanded.

The work group has addressed each of these purposes: a common, minimum data set was identified; a chapter was developed on human resources for *Mental Health, United States, 1990*; a chapter was developed on trainees for *Mental Health, United States, 1992*; and a plan was developed to improve data comparability. Early in the 1990s, representatives of clinical mental health counseling, marriage and family therapy, and psychosocial rehabilitation were added to the work group. More recently, representatives of school psychology have also been added.

The present chapter is designed to update information contained in the 1990 and 1992 chapters, and to add information on disciplines incorporated into the work groups since 1990. The chapter presents comparable information on the size and characteristics of each of the eight disciplines. Results are restricted to those data elements that are comparable across the disciplines. Exceptions to this general approach are noted in the footnotes and in the appendix to this chapter (p. 238). Readers are encouraged to review the appendix for descriptions of the survey methodologies used to collect the data reported here.

Clearly, a strong need exists in the mental health field for increased precision and comparability of human resources data. Because mental health is a very labor-intensive field, with the preponderance of financial resources spent in this area, the policy and resource implications of human resource data are enormous. To plan adequately for future services, both the public and private sectors require access to such data. In this context, the present chapter is another step along a path that is of potential benefit to the entire field.

At the outset, it is important to specify the scope and limitations of the data. The reader needs to be sensitive to data coverage both across and within disciplines, as well as over time.

The chapter addresses two types of human resources:

- *Clinically trained mental health personnel* - Professionals who, because of recognized formal training and/or experience could perform direct clinical mental health care, whether or not they are doing so at present.

- *Clinically active mental health personnel* - Those professionals who are currently engaged in the provision of direct clinical mental health care (a subset of total mental health personnel.)

The numbers of clinically trained mental health personnel and clinically active mental health personnel are specified only for professionals from the eight mental health disciplines in the work groups. Other groups have not been considered in this report. The reader should note that clinical supervision of trainees is considered to be a direct clinical activity in the analyses of activity type.

When possible, coverage includes an entire discipline, rather than the membership of a professional association. The analyses for each discipline specify the scope of coverage. Timeframes for the statistical information vary somewhat from discipline to discipline. The reader should note the variability within and between disciplines.

Psychiatry

Introduction

The past decade has been a period of transition for psychiatry as a result of the dramatic changes in the nation's health care delivery system. This chapter describes the current workforce in psychiatry. Demographic and training characteristics, as well as professional activities are emphasized. It also reports on psychiatrists' professional activities.

Data sources for this chapter include the American Medical Association (AMA) *Physician Characteristics and Distribution in the United States* (1996); the 1996 membership records of the American Psychiatric Association (APA); the 1994 APA Membership Directory Survey; and the 1988-89 APA Professional Activities Survey (PAS). The AMA data contain information on all physicians practicing in the United States who are self-designated or self-identified as psychiatrists. As a result, the AMA data may include some physicians with no specialty psychiatric training. In comparison, all psychiatrists included in the APA data, which supplement the AMA estimates, by providing data not otherwise available, are board-eligible or board-certified. It should be noted that the APA data do not represent the universe of psychiatrists in the United States. The membership of the APA does, however, include a significant majority of the nation's psychiatrists.

Demographic and Training Characteristics

In 1995, there were 33,486 clinically trained psychiatrists in the United States, reflecting a 29.9 percent increase in the number of psychiatrists since 1982, and a 3 percent increase since 1992 (table 10.1). Table 10.2 provides data on the basic demographic characteristics of the clinically trained APA members in the United States. Approximately 75 percent of the APA members are male, and 25 percent female. In 1996, the median age of APA members was 52 years. The median age of female APA members was 46 years compared to a median age of 54 years for male APA members. Female members under the age of 39 comprise 26.4 percent, compared to only 12.0 percent of male members. Female APA members who are under the age of 50 comprise 64.1 percent, compared to 38.2 percent of male APA members (table 10.2).

Psychiatrists who are white comprise 75.2 percent of APA members, compared to 83.1 percent of the general population (U.S. Bureau of the Census 1995). Individuals of Asian origin represent 8.9 percent of the APA membership and 3.2 percent of the general population. Hispanics, African Americans, and American Indians are underrepresented in the APA membership when compared with their proportion in the U.S. population. Persons of Hispanic descent account for 4.3 percent of the APA membership, and 10.0 percent of the general population, African Americans comprise 2.1 percent of the APA membership, compared to 12.5 percent of the general population, and American Indians constitute .1 percent of the APA membership and .8 percent of the general population. To address the underrepresentation of racial and ethnic minorities among psychiatrists, the American Psychiatric Association encourages high school, college, and medical school programs to recruit minorities to pursue careers in the field of psychiatry.

There are approximately 12.7 psychiatrists per 100,000 individuals in the U.S. population. The distribution of psychiatrists varies across geographic regions, ranging from 4.9 per 100,000 in Mississippi, and 5.9 per 100,000 in Iowa and Idaho, to more than 26.5 per 100,000 in New York, 29.6 per 100,000 in Massachusetts, and 61.1 per 100,000 in the District of Columbia.

Table 10.3 reports the number and rate per 100,000 in the population of clinically active psychiatrists practicing in the United States. The percent of clinically trained psychiatrists in the United States who are clinically active is 90.5 percent. South Dakota reported the highest percentage of clinically active psychiatrists (98.1 percent), followed by Idaho (97.0 percent) and Alaska (95.2 percent). The District of Columbia reported the lowest percentage of clinically active psychiatrists (81.0 percent). Other States which reported relatively low rates of clinically active psychiatrists were Maryland (85.1 percent), Rhode Island (86.8 percent), Connecticut (86.9 percent), and Massachusetts (87.6 percent).

The residency program in general psychiatry has for most of its history been a 4-year program of full-time training that follows the completion of medical school (Dial et al. 1990). The number of medical students entering psychiatric residencies has increased 24.6 percent since 1982. However, since 1990, the number of residents has remained relatively constant. During the 1994-1995 academic year, 6,089 medical residents were trained in psychiatry (table 10.8), a slight increase from the 6,072 psychiatrists

trained during the 1989-1990 academic year. During the past five years, the percentage of male and female residents has remained relatively stable. In 1995, 56.3 percent of psychiatric residents were male and 43.7 percent were female.

Since 1990, there has been a 64.7 percent increase in the number of International Medical Graduates entering psychiatric residencies (American Psychiatric Association, Census of Residents 1995). During 1995, 35.4 percent of psychiatric residents graduated from an IMG compared to 21.5 percent of psychiatric residents in 1990. During this five year period, the number of white residents decreased 16.2 percent, the number of Asian residents increased 65.3 percent, and the number of residents of Hispanic origin increased 22.5 percent. The number of African American residents increased 11.3 percent, and the percentage of American Indian psychiatric residents remained stable at .2 percent. These changes reflect a significant increase in the number of International Medical Graduates trained in psychiatric residencies and indicate a movement toward greater representation of minority and ethnic groups in psychiatry.

Professional Activities

The majority of psychiatrists work in more than one setting during the course of a week. During 1988, the mean number of settings for psychiatrists was 2.3 (Dorwart et al. 1992). Psychiatrists working full time in the U.S. in 1988, and who worked in two or more settings comprised 77.9 percent (table 10.5). Compared with other mental health care providers, a greater percentage of psychiatrists work in two or more settings when employed in a part-time capacity. Psychiatrists working part-time in the U.S., and who work in two or more settings comprise 58.8 percent. Work in secondary settings may reflect both physician preference and the availability of part time positions (Fenton 1987).

Individual or group private practice historically has been the primary work setting for the greatest number of psychiatrists, but substantial changes in the health care delivery system have resulted in a decline in the proportion of psychiatrists primarily working in these settings. Between 1982 and 1988 the proportion of psychiatrists reporting private practice as their primary work activity decreased from 57.7 percent to 45.1 percent (Dorwart et al. 1992).

Growth in the number of private psychiatric hospitals, general hospital psychiatric units, and organizations providing outpatient mental health care has created new employment opportunities for psychiatrists (Olfson et al. 1994). Setting data reported in the 1994 APA Membership Directory Survey indicate 28.2 percent of APA members worked in some form of hospital as their primary work setting (i.e., general, public psychiatric, private psychiatric, or Federal). Specifically, 8.6 percent worked primarily in a public psychiatric hospital, 7.6 percent in a private psychiatric hospital, and 6.8 percent in a general hospital. Respondents who reported working primarily in a community mental health center comprised 6.6 percent.

Approximately 71.8 percent of psychiatrists reported working in a secondary work setting (table 10.6). Private psychiatric hospitals were the most commonly reported secondary employment setting (15.8 percent), followed by individual private practice (15.7 percent), general hospitals (15.1 percent), medical schools (12.4 percent), and Community Mental Health Centers (7.7 percent).

In addition to working in more than one setting, psychiatrists are usually involved in more than one work activity (table 10.7). In 1988, 84.6 percent of psychiatrists were involved in patient care, 52.5 percent in administration, 49.0 percent in some form of teaching, and 17.4 percent in research. Psychiatrists spent a mean number of 32.6 hours per week in direct patient care in 1988, 2.5 fewer hours per week (a 7.4 percent reduction) than in 1982. In addition, in 1988, psychiatrists were spending more time in administrative activities and research, and less time in teaching, than in 1982. The decrease in direct patient care hours, and increase in administrative hours during this period is most likely due to changes in the roles of psychiatrists associated with changes in the organization and financing of the

nation's health care system.

Conclusion

Over the past fourteen years, the number of clinically trained psychiatrists has increased; however, the rate of growth in clinically trained pscyhiatrists has decreased. There has been an increase in the number of female psychiatrists entering the field, and the median age of psychiatrists has slightly increased. The number of psychiatric residents has remained relatively constant since 1990. There has, however, been significant growth in the number of international medical graduates entering psychiatric residencies.

The average psychiatrist works in more than one setting. Individual and group private practice has declined somewhat as psychiatrists' primary work setting, while there has been an increase in the number of psychiatrists working in organized care settings. Psychiatrists continue to be involved in many types of work activities, including direct patient care, research, administration, and teaching.

Psychology

Because of its content and evolution, psychology has traditionally occupied a unique place within the mental health professions. Prior to World War II, psychologists were primarily employed in academic institutions, with only a small core of individuals working outside the university, and actively engaged in mental health services. In fact, only relatively recently has the discipline cultivated a strong and visible practitioner base. It was not until 1977, with the passage of the Missouri psychology licensure, that all 50 States and the District of Columbia granted statutory recognition to the profession (DeLeon et al. 1984). Since then, the number of licensed psychologists has burgeoned, rising from an estimated 20,000 in 1975 to almost 46,000 in 1986, to almost 70,000 in 1995.

Coupled with the dramatic growth in the number of practitioners was a significant expansion in psychologists' roles as direct mental health service providers. Today, psychologists are involved in almost every type of mental health setting, be it institutional or community based, reseach- or treatment-oriented, or general health or specialty focused. Within these environments, psychologists' roles also have expanded beyond the traditional activities of diagnostic assessment and psychotherapy, to include primary prevention, community-level intervention strategies, assessment of service delivery systems, and client advocacy.

Demographic and Training Characteristics

The last two decades have witnessed substantial growth in the number of doctoral-level psychologists who might be called upon to provide mental health services. Since 1983, the number of doctoral psychologists trained in health services provision has risen from an estimated 44,600 (Stapp et al. 1985), to nearly 70,000 in 1995 (table 10.1). Fueling this growth has been increasing degree production; the number of new Ph.Ds and Psy.Ds awarded each year in the practice specialties of psychology increased from 1,571 in 1979 to almost 2,400 in 1989, and was approximately 2,500 in 1995 (Pion 1991: Research Office, American Psychological Association 1996) (table 10.8). Similarly, the training system also has expanded. The number of doctoral psychology programs in clinical, counseling, and school psychology that are accredited by the American Psychological Association has more than doubled, rising from 134 in 1979, to 234 in 1989, and 307 in 1995. The total number of graduate students enrolled in these doctoral programs has risen from 14,586 in 1984-85 to at least 18,773 ten years later (Williams 1996).

Despite this growth in psychologists trained to provide direct services, services by psychologists continue to be relatively inaccessible in many areas of the country, and shortages of mental health personnel appear for certain target populations. These include seriously emotionally disturbed children and adolescents, adults with serious mental disorders, rural residents with mental health needs, and the

elderly, to name a few.

Tables 10.2-10.4 present basic information on the demographic characteristics of psychologists who could provide mental health services (the clinically trained pool). In many ways, this group reflects the changing demographic characteristics of psychologists as a whole. For example, women comprised 44 percent of all clinically trained psychologists in 1995 (table 10.2) -- up from 38 percent in 1989 (Dial et al. 1990). This growth is not surprising, given that the participation of women in psychology as a whole has grown significantly over the past two decades (Pion et al. 1996). In 1995, 64 percent of all Ph.Ds in psychology were awarded to women, as compared to 49 percent in 1985 and 32 percent in 1975 (Henderson 1996). Currently, women account for 67 percent of all full-time doctoral students in psychology (Williams 1996).

Although psychology attracts a greater percentage of racial and ethnic minorities relative to many other disciplines, their representation remains relatively small. Only a small percentage (6 percent) of all clinically trained psychologists are racial and ethnic minorities -- a figure that is lower than their representation in the U.S. adult population. In terms of doctoral production, the percentage of psychology Ph.Ds earned by racial and ethnic minorities has hovered around 9 percent (National Science Foundation 1994). As table 10.2 shows, the pool of clinically trained women is slightly more racially and ethnically diverse than that of their male counterparts.

In general, the pool of clinically trained psychologists is growing older. The median age in 1995 was 48 years, as compared to 44.2 in 1989. Similarly, the median years since the doctorate increased from 12 years in 1989 to 15 years in 1995. Once again, results show that women are slightly younger than men and have earned their doctorate more recently; the median age for women was 46 years, while the corresponding figure for men was 49 years; the median number of years since awarding of the doctorate was 12 years for women and 17 years for men. These findings are not surprising, given the trends in degree production described above.

Professional Activities

Table 10.1 indicates that the majority (82 percent) of psychologists actively providing services are working full time, and at least half of these individuals are doing this by a combination of two or more positions. For those who are working part time, however, it is more likely that they have only one job or position.

The primary and secondary employment settings of active health service providers in psychology are presented in table 10.6. Over half (52.5 percent) report that their primary employment setting is independent practice, with the majority having their own solo practices, rather than working in a group psychological or medical/psychological practice. The next most frequent setting, albeit a distant second, is hospitals, with 7 percent working in specialty hospitals (e.g., psychiatric, children's, and rehabilitation inpatient facilities), and 5 percent in general hospitals. Another 11.2 percent of clinically active psychologists worked primarily in academic institutions. Clinics and other human service organizations each were the primary employers of 6-7 percent, and a small percentage (3.1 percent) were primarily working in schools and other educational settings. About 8 percent were employed by other types of settings, such as government or business.

Forty-six percent or about 24,500 of all clinically active psychologists worked in more than one setting in 1995 (table 10.6). Again, the most typical employment setting was independent practice (46.8 percent), with universities and four-year colleges ranking a distant second (17.9 percent). Much smaller percentages listed their secondary position in hospitals (8.8 percent), clinics (5.1 percent), and the other types of settings surveyed.

Data in table 10.7 indicate that over three-quarters of those who are trained to provide direct services, in fact, view this as their primary activity. The remaining 24.0 percent, although qualified to carry out assessment, psychotherapy, and other related services, serve in other major roles, most likely as college faculty, clinical researchers, and program administrators. Despite the emphasis on service provision as a major work responsibility, the data in table 10.7 reveal that psychologists are involved in more than one activity; almost one third teach, slightly less than one fifth conduct research, and over one fourth have administrative duties. In fact, of those reporting direct services provision as their primary activity, only one third are solely involved in services delivery. Nearly two fifths are involved in both direct services provision and another effort such as teaching, administration, and research, and the remainder are involved in direct services plus two or more different activities.

Social Work

Social work has always been closely identified with the provision of public social services, such as income maintenance, child welfare, family planning, and other welfare issues. Social workers have also been major providers of mental health services since the early 1920s, when they were an integral part of the beginning of the child guidance movement. Social workers are trained to intervene when the individual and the environment do not mesh smoothly, causing discomfort or disruption for the individual or family, or demonstrating the need for social restructuring.

Thus, social workers are found in the public sector -- public welfare and child welfare, as well as publicly funded health and mental health clinics, and public schools; in the private sector--family agencies, clinics, hospitals, and in private practice; in the workplace -- employee assistance programs, alcohol and chemical dependency programs; in community organization settings -- public housing, policy analysis for city councils, identifying and structuring new programs as the need is demonstrated; and in religious settings -- working for outreach programs and pastoral counseling.

The advent of psychoanalytic understanding, and the impetus this gave to the mental health movement placed great emphasis on the individual, and individual causation of so-called neuroses, as well as psychoses. The social work focus on the person-in-the-environment and the impact of this interaction on individuals and their psyches was a unique contribution to the mental health movement.

In addition, social work early identified the importance of the family as a central focus rather than an individual in isolation. Much early professional literature emphasized this importance, and spoke of the family as the identified unit for treatment. This had an impact on the early child guidance movement, as well as other mental health efforts, and powerfully influenced the development of family therapy.

In the 1960s and 1970s, with the establishment and development of comprehensive community mental health centers, clinical social workers were heavily utilized, and, in fact, provided a major proportion of outpatient mental health treatment services.

In the 1980s, an increasing number of clinical social workers moved into full-time or part-time private practice. As we move into the 1990s, private group practice and work in outpatient organizations are the fastest growing settings for clinical social workers.

Demographic and Training Characteristics

The data for this analysis include only members of the National Association of Social workers (NASW), and significantly understate the total population of clinically trained social workers. Estimates of the number of social workers who belong to NASW range from 30 to 50 percent. This report is based upon 94,396 NASW members with a master's or doctoral degrees, excluding students and retired social workers (see table 10.1).

Conservatively assuming that 50 percent of social workers belong to NASW, there are probably 188,792 clinically trained social workers now in the United States. This means that social work figures in all tables in this section could be doubled when comparing to the other disciplines that are estimating the entire universe of their professions.

Membership in NASW has been rising steadily since the inception of the Association in 1955 when seven predecessor social work organizations merged. The NASW membership of 129,092 in June of 1990 had grown to 152,067 by April of 1996. All data for these tables is drawn from membership applications and renewal forms which routinely solicit demographic and practice data. Whereas clinically trained social workers represent all non-retired masters and doctoral graduates, clinically active social workers are the subset that report themselves in direct or supervisory practice as their primary function.

Examination of table 10.2 indicates that social workers are overwhelmingly female (76.8 percent), and white (89 percent). The participation by females is increasing, as shown by comparing the 1996 figures to the 1990 data of 72 percent female. In 1996, non-white social workers were about 11 percent of the overall total, with African Americans comprising 5 percent and all Hispanic groups representing 2.6 percent of the total. The age distributions for male and female social workers are similar, although decreasing numbers of male practitioners can be seen in the younger age category, reflecting the increasing female dominance. Table 10.4 indicates that over 40 percent of the clinically trained social workers have had between 6 and 15 years of experience.

Table 10.3 portrays the distribution of clinically trained social workers by State and region. It varies widely from State to State, from a low of 11.3 per 100,000 residents in Mississippi to a high of 107.8 per 100,000 residents in the District of Columbia. The New England and Middle Atlantic Regions demonstrate the highest distributions of social workers by populations, which is not surprising, given that these areas have traditionally provided greater support for human service programs. For the same reason, it is not unexpected that the lowest social work distribution per population is in the east and west south central regions. The national rate of clinically active to clinically trained social workers is 61.9, varying from a low in West Virginia of 53.6, to a high in Montana of 72.2 percent. This distinction by Montana reflects the economics of greater reimbursement, as Montana is one of the few States with a fee-for-service Medicaid program that compensates social workers in independent mental health practice.

The number of trainees in social work has grown appreciably in every category between 1989-90 and 1994-95, as seen in table 10.8. The total number of full-time social work students in academic year 1994-95 was 21,622, the largest ever (Lennon 1995). During this year, part-time also reached its largest mark at 11,590 students. This reflects the recent trend in which student enrollment has grown every year since 1986, except for 1989.

The total number of social work programs is 420, of which 37 are graduate programs, 308 are baccalaureate only, and 75 are joint programs. The highest concentration of programs is in the Midwestern States, and 68 percent of social work programs are in the eastern half of the country. The majority of programs are in State institutions, with 63 percent of social work faculty being employed by the States. Of the social work programs in private institutions, 68 percent are in church-related institutions.

Female students continue to dominate, comprising 81.9 percent of the 1994-95 student bodies. Ethnic minorities constitute 19.2 percent of those awarded social work degrees. Of these, the largest groups are African Americans at 11.5 percent, Latinos at 3 percent and Asian Americans at 2 percent. The majority did declare a field of practice, with mental health being the most popular at 11.7 percent. Other popular fields include family services at 8.6 percent, health at 7.4 percent, and child welfare at 7.1 percent.

Professional Activities

Table 10.6 presents the primary employment settings of clinically active social workers. Health and mental health hospitals and clinics employ almost 40 percent of clinically active social workers. In comparing 1989 and 1996 data, it is not surprising that with managed care in ascendancy, a reduction of social workers has occurred in hospital settings, and an increase has occurred in outpatient clinic work.

Individual and group practice settings include more than a fourth of all social workers, demonstrating growth that probably reflects the greater inclusion in the 1990s of the social work profession under managed care and other insurance reimbursement. There is a decline of social workers in social services to 16.2 percent of clinically active social workers, showing the long-term loss of social work inclusion in public social services.

Secondary employment information is similar with a few notable exceptions. Individual and group practice are almost fifty percent of all secondary employment, indicative of the large number of part-time practices of many social workers. Again, outpatient settings--either health or mental health--predominate over inpatient settings.

Of the 94,396 non-retired clinically trained social workers, about 91.7 percent identified themselves as engaged in direct practice, supervision, or agency-based training (table 10.7). This represents a growth from 1989, perhaps influenced by the larger numbers of social workers in private and group practice. Approximately 34.9 percent of social workers state that they perform administrative functions. Teaching (at 11.1 percent), and research (at 1.3 percent), show some growth from previous years.

Psychiatric Nursing

Demographic and Training Characteristics

Educational preparation to practice in psychiatric nursing begins at the pre-baccalaureate level. While there are registered nurses practicing in psychiatric settings who have been educated in associate degree and hospital diploma programs, the nursing profession accepts the baccalaureate degree in nursing as the basic education required for beginning general practice in psychiatric nursing. These nurses, with basic education, are considered "generalists," and may be employed in psychiatric specialty settings or may work with clients with mental illness in other general health care settings. The American Nurses' Association provides a certification process and examination for generalist psychiatric nurses, as well as a certification for advanced practice psychiatric nurses.

Advanced practice psychiatric nurses are educated in graduate programs and are required to complete at least a master's degree in psychiatric nursing. In 1988, it was estimated that there were 13,045 nurses with graduate education in psychiatric mental health nursing: in 1988, 3,497 were certified as specialists in psychiatric mental health nursing. Credentialing as a certified specialist in adult and/or child and adolescent psychiatric and mental health nursing is provided by the ANA's national certification program. In addition, some States have procedures for credentialing advanced practice psychiatric nurses.

Criteria for ANA certification as a specialist in psychiatric mental health nursing requires graduate education in psychiatric mental health nursing, clinical practice with expert supervision for a required number of hours following a graduate degree, as well as successful completion of a written examination after the required clinical practice and supervision have been completed. The ANA criteria for certification has been recently changed to require that all nurses seeking certification have successfully completed graduate education in psychiatric mental health nursing. Previously, applicants for certification could have been educated in related, but non-psychiatric nursing graduate programs. In the past five years

another psychiatric nursing educational and practice model has emerged; the psychiatric nurse practitioner. Limited data available on psychiatric nurse practitioners will be presented in a later section of this discussion.

The data presented in the tables of this chapter reflect information only on the Certified Specialists in Psychiatric and Mental Health Nursing. **Nurses with graduate degrees in psychiatric mental health nursing who are not currently certified, are not reflected in these tables.** As of October 1995 there were 6,030 Certified Clinical Nurse Specialists in Adult Psychiatric and Mental Health Nursing; there were 770 Certified Clinical Nurse Specialists in Child and Adolescent Psychiatric Mental Health Nursing, for a total of 6,800.

There were 6,090 Certified Specialists as of Spring 1994. It is estimated that 90 of these nurses are retired and not employed, that 207 are not currently working, and that 45 are students. Table 10.1 indicates that the number of Certified Specialists in Psychiatric and Mental Health Nursing is increasing.

Table 10.2 presents demographic information on this population. This group of specialists is primarily female (95 percent) and white (95 percent). Despite profession-wide efforts to increase the diversity, there are few men or minorities among these Certified Specialists. An encouraging trend is reflected however, as there are higher percentages of men in younger age groups which may result in an increase over time. Discouragingly, there are few minorities in the younger age categories suggesting a continuing problem in recruiting minorities into the specialty.

Table 10.8 shows that the number of nurses enrolled in graduate education in psychiatric nursing is continuing to decline. Psychiatric nursing leaders have documented this decline since the early eighties; the decline parallels the reduction of Federal funding for psychiatric nursing graduate education (Chamberlain 1983, 1989). As of 1994 there were 1,674 enrollees in psychiatric mental-health graduate programs, with only 26 percent (439) enrolled full time. In 1994 there were 568 graduates of such programs. This table shows there has been a steady decrease in enrollees. Additionally, a decrease in the percent of students enrolled full time has contributed to the decline in graduates in any one year. The number of graduates decreased from 781 in 1979-80 (which was an undercount), to 568 in 1994. Table 10.4 documents the number of years since the specialists obtained their highest degrees. Few certified specialists completed their education within the last two years; this is expected, given the requirement for post-graduate clinical practice. Of concern is the low percentage of specialists finishing their highest degree within the last 3-5 years. The low percentage reflects the decrease in graduates from psychiatric-mental health graduate programs in recent years.

Employment

Seventy-six percent of employed certified psychiatric clinical nurse specialists are estimated to be working full time, and 24 percent part time. Approximately 45 are students; students may or may not be employed. These specialists function in a variety of positions and hold a variety of job titles, ranging from clinical nurse specialist to educator, administrator, consultant, nurse practitioner, researcher and case manager. Their primary work activity is predominantly direct patient care. As Table 10.7 shows, most were involved in many of these activities within professional nursing positions. Ninety-four percent were involved in either providing or supervising direct patient care; the majority participated in teaching and administrative activities. Only 25 percent reported participating in research.

Clinically Active Specialists

Table 10.3 provides an estimate of the State by State geographic distribution of clinically trained Certified Specialists in Psychiatric Mental-Health Nursing. In parallel to the distribution of the population of trained Certified Psychiatric Nurses, there is uneven geographic dispersion of these nurses. *(Mental*

Health, United States, 1990; Merwin and Fox 1992).

Eighty-five percent of trained and employed specialists were determined to be clinically active. The primary and secondary work settings of these individuals is presented in Table 10.6. In primary work settings 29 percent of these nurses are employed in hospitals, 24 percent in clinics, rehabilitation, or other outpatient settings, 14 percent in academic settings, and 25 percent in either solo or group independent practice. In secondary work settings, most Certified Clinical Nurse Specialists (46 percent) work in independent practice (solo 34 percent, or group 12 percent). Academia (17 percent) is the next most frequent work setting, with hospitals serving as secondary work site for only 13 percent of these nurses. Table 10.5 shows that most clinically active specialists work in more than one setting.

Discussion

There are several trends occurring in the education and practice of specialty psychiatric mental health nursing. The recent proliferation of nurse practitioner educational programs in all clinical specialty areas, including psychiatric nursing, is producing a different nursing workforce than previously existed. In 1991, few nurse practitioner students specialized in psychiatric nursing or only 89 (two percent) (NLN 1994 p.107-8). By 1992, 183 individuals (three percent of total of all types of NPs) were enrolled. In 1994, there were 364 enrollees of such programs, with 70 graduates (NLN 1994, personal communication). The requirements for regulation/licensure of psychiatric nurse practitioners vary by State. The role of psychiatric nurse practitioners in providing general, as well as mental health care also varies.

Enrollees of graduate programs in psychiatric mental health nursing are enrolled in either nurse practitioner, advanced clinical practice, or teaching programs. In 1991 there were 8 percent of graduates from nurse practitioner programs, 84 percent from advanced clinical practice programs, and 8 percent in teaching (NLN 1994 p.111). In 1994 there were 12 percent of graduates from nurse practitioner programs, 83 percent from advanced clinical practice programs, and 5 percent in teaching. By 1994, enrollees choice of program also shifted. Twenty-two percent of enrollees in graduate psychiatric mental health nursing were in nurse practitioner programs, 74 percent advanced clinical practice programs, and 4 percent in teaching programs (NLN 1994 personal communication).

The shift to nurse practitioner programs has been stimulated by health reform efforts which have promoted the potential cost effectiveness of advanced practice nurses who are able to provide integrated primary and mental health care (NLN 1994). Accompanying this shift has been a decrease in barriers to independent practice, as well as increased legislation supporting independent prescription authority for these nurse practitioners. The scope of prescription authority differs from State to State, with some States granting wide authority, and others inhibiting prescriptive authority all together (Talley and Brooke 1992). Two types of authority governing prescriptive practices of nurse practitioners, collaborative and substitutive, reflect differences in the degree of medical supervision required. Substitutive authority does not require supervision by a physician. Complementary authority, by far the most common to date, requires physician collaboration and supervision. Currently, it has been estimated that 35 States provide some type of prescriptive authority to nurse practitioners. (Washington Consulting Group 1994; Talley and Brooke 1992).

The scope of practice of nurse practitioners prepared as clinical specialists in psychiatric nursing is related to graduate education and State regulations. Practice patterns range from specialty mental health practice alone, to dual certification, as both a psychiatric specialist and as a nurse practitioner in a general health care specialty, such as family, adult, or pediatric nurse practitioner. There is considerable overlap between Nurse Practitioner and Certified Clinical Nurse Specialist preparation and nurses may be certified in both areas. The Division of Nursing of the U.S. Department of Health and Human Services conducted a study of Advanced Practice Nursing (APN), and determined that 39 percent of APN's classified as Nurse Practitioners in Psychiatry were also certified Clinical Nurse Specialists (CNS's); 8 percent of

CNS's were also NP's (Washington Consulting Group, 1994).

Health care reform has increased the recognition of Advanced Practice Psychiatric and Mental Health Nurses as important providers within the mental health care delivery system (Krauss 1993; SERPN 1996). Rapidly changing regulations stimulate the need for determining the effect on patient outcomes of different regulations/licensure laws. The availability, recruitment, retention, and practice patterns in rural areas also needs study (Merwin, Goldsmith, and Manderscheid 1995). The effectiveness of psychiatric nursing care in improving patient outcomes is evident from outcome studies (Merwin and Mauck 1995). Additional research is needed to further identify the influence of provider, treatment, and regulatory changes upon the outcomes of clients treated by psychiatric nurses. Specifically, research is needed which clarifies the emerging role of psychiatric nurse practitioner and its effect on outcomes of care.

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Counseling

Professional counseling, as we know it today, began in the early years of this century as a response to the need for vocational counseling. Such counseling was needed to assist individuals trying to make their way in a rapidly-changing industrial age. Thus, professional counselors were likely to be found in governmental agencies dealing with career selection. Soon, these positions were established in educational settings in a logical pairing of training and career selection. Thus, vocational counseling in both educational and agency settings prevailed as the defined specialties of counseling in the first half of the century.

Following World War II, the National Mental Health Act of 1946 not only established the National Institute of Mental Health, but also marked the beginning of publicly funded mental health services. Many counselors received training from the Veterans Administration (VA), in order to provide counseling to veterans returning from World War II. In the 1950s, many trained counselors began to find work in clinical settings where they received supervision and experience in therapy milieus.

In regard to the training of counselors, the passage of the National Defense Education Act (NDEA) in the late 1950s made it possible for graduate schools of education to establish funded programs to train guidance counselors. This decision became a landmark in history, linking personal needs, education, and our nation's well-being. The Act provided grants to States for stimulating the establishment and maintenance of local guidance programs, and grants to institutions of higher education for the training of guidance personnel to staff local programs (Gibson and Mitchell 1990). The intent of the school counseling addressed in the Act was to establish a national cadre of counselors adept in helping students plan for post-high-school education. More specifically, Congress wanted talented math and science students to be screened and encouraged to further their education.

Thus, in an indirect but significant manner, the Soviet space and arms race gave rise to the establishment of counselor education programs across the nation. Although school counselors began to serve a much broader role than envisioned by the NDEA, there is no question that the Act provided a base from which counseling could grow. By the mid-1960s, notable contributions achieved by the Act could be easily identified. These contributions included supporting 480 institutes designed to improve counseling capabilities, and granting 8,500 graduate fellowships which took a step in meeting the needs of many

college teachers. By the end of the 1960s, more than 300 academic units housed counselor education postgraduate training programs.

In the early 1960s, the education of the public on mental illnesses and their treatment became pronounced. This awareness sparked the community's involvement in raising the standards of treatment for mental disorders. In 1963, the Community Mental Health Centers Act (Public Law 88-164) was passed, establishing 2,000 such centers to provide a range of clinical counseling services. This act was amended in 1975 (Public Law 94-63) to further define the mental health services that each center was mandated to provide. This proliferation of outlets for mental health treatment provided opportunities for mental health counselors to utilize their skills.

During this period, post-graduate counselor education programs began to provide training with more emphasis on clinical training. The number of programs increased to 550 by 1980, and the number of programs stabilized in the mid-I980s at about 500. The numbers of degrees being granted annually in counseling stabilized at about 10,000 in the late 1980s. The numbers of master's degree students seem to be increasing in the early 1990s.

The large number of counselor education graduates was accompanied by an increased number of students seeking work settings outside education. The intriguing nature of clinical work and the preponderance of clinically trained counselor educators gave rise to specialized degree concentration in clinical mental health counseling, family counseling, community agency counseling, and rehabilitation counseling. The 56,000-member American Counseling Association (ACA) is the largest group of counselors representing the various specialties of the discipline. About two-thirds of the members are females. The ACA division most closely identified with clinical/therapeutic counseling is the American Mental Health Counselors Association, a 10,000-member division. However, an estimated 44 percent of the total ACA membership identify themselves as practicing in clinical settings, indicating that a variety of specialty areas of the profession include clinical work.

As of June 1996, 41 States and the District of Columbia have credentialing statutes regulating nearly 50,000 counselors. The National Board for Certified Counselors, Inc., (NBCC) is the voluntary credentialing agency for counselors in the U.S., certifying over 24,000 counselors. NBCC standards are the baseline used in model licensure legislation.

Demographic and Training Characteristics

Clinical mental health counseling is considered the specialty area of professional counseling that requires extensive course work and clinical preparation and supervision. NBCC certifies the specialty of clinical mental health counselors, which requires a 60-semester-hour master's degree, as well as clinical supervision, taped therapy samples and examination for certification as a clinical counselor. For the purposes of collecting data for this chapter, the assumption has been made that the requirements for providing mental health services as a professional counselor can be met in a number of ways. First, certification as one of 1,700 Certified Clinical Mental Health Counselors (CCMHC's) is the most uniform and comprehensive method. Counselors regulated by State boards of professional counseling are thus granted independent, clinical practice privilege within the scope of their training. This second group constitutes the majority of the 50,000 State-licensed/certified counselors. Third, members of the American Counseling Association (ACA) and their divisional affiliate, the American Mental Health Counselors Association (AMHCA), are almost all master's or above trained, and statistics delineating clinicians were available. Thus, table 10.1 figures represent a combination of counselors from each of these sources, with a conservative attempt to closely estimate numbers being cross counted. Data in table 10.1 reflect elimination of all identifiable cross counting.

The Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredits

150 academic programs. Most other counselor education programs emulate the standards of the body. Table 10.8 shows estimates of trainees derived from two major sources. The book, *Counselor Preparation 1993-1995* (Hollis and Wantz 1993), is the eighth edition of a twenty-three-year-long longitudinal study of counselor training. Information in this book provides a valuable data source. Combining *Counselor Preparation* and CACREP data has created an avenue of finding a surprising number of current students. Most programs are taught to part-time students who average over four years to receive a master's degree. Thus, the number of students is matriculating and active, but creates a larger number base that cannot be compared to structural, full-time master's programs.

In 1990, graduates of master's training programs of a clinical nature totaled 4,977 (3,303 females and 1,674 males). Doctoral programs graduated 367 students (215 females and 152 males). Every State and territory has a number of counselor preparatory programs roughly proportional to the regional population (Hollis and Wantz 1993). Graduate programs have totaled about 5,000 clinically trained counselors per year. Most master's degree programs averaged over four years to complete, meaning that roughly 18,000 are in training at this time.

Professional Activities

Professional counselors practice in a wide variety of settings, and with a wide group of clientele. Further, like many mental health providers, counselors often define their specialty of practice to a subdiscipline. So setting (such as a clinic), population (such as children), and academic subdiscipline (such as group counseling) often define the professional counselor. The profession defines practice and ethics standards and creates the training standards. Counselors are expected to have core training and supervised practice, and many go on to specialize after core training. The profession monitors the practice of professional counseling to not exceed the training of the individual.

The American Counseling Association defines the Practice of Professional Counseling as the application of mental health, psychological, and human development principles in order to:

- facilitate human development and adjustment throughout the life span:
- prevent, diagnose, and treat mental, emotional or behavioral disorders and associated distresses which interfere with mental health;
- conduct assessments and diagnoses for the purpose of establishing treatment goals and objectives; and
- plan, implement, and evaluate plans using counseling treatment interventions.

Counseling treatment interventions shall mean the application of cognitive, affective, behavioral, and systemic counseling strategies, which include principles of development, wellness, and pathology that reflect a pluralistic society. Such interventions are specifically implemented in the context of a professional counseling relationship.

The practice of professional counseling includes, but is not limited to:

- individual, group, and marriage and family counseling and psychotherapy; assessment;
- crisis intervention;
- diagnosis and treatment of persons with mental and emotional disorders;
- guidance and consulting to facilitate normal growth and development, including educational and career development;
- utilization of functional assessment and counseling for persons requesting assistance in adjustment to a disability or handicapping condition;
- consulting, research; and

- referral.

The use of specific methods, techniques, or modalities within the practice of professional counseling is restricted to counselors appropriately trained in the use of such methods, techniques or modalities. This definition is contained in the April 1994 minutes of the ACA governing council.

Marriage and Family Therapy

Marriage and family therapy grew out of the public's demand for professional assistance with marital difficulties, and from the development of a family systems therapy orientation by psychotherapy professionals and others (Nichols 1992). From their beginnings in the 1930s and 1940s, marriage and family therapists have developed into uniquely qualified healthcare professionals who are officially recognized as a core mental health discipline, along with psychiatry, psychology, social work and psychiatric nursing (42 U.S. Code 242a).

Federal law defines a marriage and family therapist as "an individual (normally with a master's or doctoral degree in marital and family therapy, and at least two years of supervised clinical experience), who is practicing as a marital and family therapist and is licensed or certified to do so by the State of practice; or, if licensure or certification is not required by the State of practice, is eligible for clinical membership in the American Association for Marriage and Family Therapy" (42 CFR Part 5).

Marriage and family therapists apply both psychotherapeutic and family systems theories, and clinical interventions to the delivery of healthcare services to individuals, couples and families. They diagnose and treat mental and emotional disorders, whether cognitive, affective or behavioral in origin. Research has found the services provided by marriage and family therapists to be effective (often more effective than standard treatments) for many severe disorders, and result in improved outcomes in both the health and functioning of clients (Pinsof and Wynne 1995; Doherty and Simmons 1996).

The profession of marriage and family therapy has burgeoned since the 1970s, with the number of therapists increasing from an estimated 1,800 in 1966, to 7,000 in 1979, to 46,000 in 1995.

Demographic and Training Characteristics

An estimated 46,227 marriage and family therapists were clinically active in the United States in 1995 (table 10.1). Female practitioners (55 percent) slightly outnumber male practitioners (45 percent) (table 10.2), and the mean age of marriage and family therapists is 52 years old (Doherty and Simmons 1996).

African Americans and those of Hispanic descent are underrepresented among marriage and family therapists, compared to their proportion in the U.S. population. The ratio of marriage and family therapists of Asian origin and Native Americans are more in line with their size in the total population. As with the other mental health disciplines, whites are significantly overrepresented among marriage and family therapists (table 10.2). Whites make up 95.5 percent of marriage and family therapists, compared to 75.6 percent of the U.S. population. Differences exist, however, between males and females. There are slightly more minorities among male than female marriage and family therapists (5.2 percent vs. 3.9 percent) (table 10.2). Increased representation of minorities among marriage and family therapists appears promising. Over 12 percent of the student members of American Association for Marriage and Family Therapy (AAMFT) are from minority population groups, according to a 1995 AAMFT Membership Survey.

Access to marriage and family therapists varies considerably across the United States, as shown in table 10.3. The ratio of therapist-to-population range from under 3 marriage and family therapists per 100,000 population in West Virginia, Delaware, Ohio, North Dakota, Louisiana and Arkansas, and more than 20

per 100,000 in Oklahoma, Indiana, Texas and Nevada, to over 73 per 100,000 population in California. The national average is 17.6 marriage and family therapists per 100,000 population. These variations can be explained by the existence (or lack thereof) of State regulation of the practice of marriage and family therapy and/or the presence of accredited university/college training programs.

In 1995, an estimated 6,776 individuals were in training to be marriage and family therapists (table 10.8). This includes 4,646 students in pre-degree academic programs, and 2,130 graduates who are completing their required supervised face-to-face contact with individuals, couples and families.

Most marriage and family therapists hold a master's degree (54.3 percent), including 12.7 percent who hold the M.S.W. social work degree. About 40 percent (39.5 percent) of marriage and family therapists hold a doctoral degree, including the degrees of Ph.D. (24.6 percent), Psy.D. (1.7 percent), Ed.D. (7.2 percent), M.D. (1 percent), and D.Min. (4.9 percent) (Doherty and Simmons 1995).

The primary national accrediting body for marriage and family therapy training programs is the AAMFT's Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), which received recognition from the U.S. Department of Education as a national accrediting body in 1978. As of 1995, COAMFTE accredited 44 master's degree programs, 12 doctoral degree programs, and 16 post-graduate clinical training programs in marriage and family therapy in the United States. This represents a 132 percent increase in the number of master's degree programs, and a 33 percent increase in the number of doctoral programs accredited by COAMFTE between 1988 and 1995. In addition, 15 master's training programs in marriage and family counseling/therapy are nationally accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Most marriage and family therapy students receive their training in programs of regionally accredited universities and colleges.

The majority (55.3 percent) of the 46,227 clinically active marriage and family therapists in 1995 are estimated to have completed their training between 6 and 15 years ago, making them highly experienced therapists as a group. Only 2.3 percent completed their training within the last two years (table 10.4).

In-service education requirements vary greatly among the State marriage and family therapy regulatory boards. Many States have no formal continuing education requirements, presumably because of the cumbersome and expensive bureaucratic mechanisms necessary to monitor and enforce the regulations, and to evaluate and sanction the providers. For those States with continuing education requirements, the typical requirement is between 30 to 40 hours per two-year renewal cycle (Sturkie and Johnson 1994).

Professional Activities

Most marriage and family therapists (67.5 percent) work full time (table 10.1), usually in one setting (60.4 percent) (table 10.5), that is a private solo or group clinical practice (65.1 percent) (table 10.6). While most marriage and family therapists are in private practice, the distribution between solo and group practices appears to be changing. According to a 1995 AAMFT Membership Survey, over a third of those in private practice reported being in group practices, including both group medical and behavioral health care group practices.

Also, growing numbers of marriage and family therapists are employed in organized care settings. Nearly one in four (22.6 percent) marriage and family therapists now work in community mental health centers and other community clinics and agencies, hospital inpatient and outpatient units, and other settings such as Employee Assistance programs (EAP) and Health Maintenance Organizations (HMOs) (table 10.6). In addition, the 1995 AAMFT Membership Survey suggests that those in the "Other/not specified" employment setting in table 10.6 include about 6 percent of marriage and family therapists in academic settings, and 2 percent employed as consultants to businesses.

Increasingly, as shown in table 10.7, marriage and family therapists are involved in roles other than direct treatment, such as administration of human service and agency settings (56.0 percent), teaching (46.7 percent), research (16.5 percent), and other activities such as prevention program development, public welfare (especially child welfare through family preservation services), public policy development, client advocacy, consultation to businesses, and more recently, managed care case managers.

Marriage and family therapists treat the full spectrum of American society. Over half of the clients seen by marriage and family therapists are female (58 percent), yet males are still a significant percentage (42 percent) of the cases seen. Nearly 12 percent of the clients are racial and ethnic minorities, and 64 percent of marriage and family therapists say they feel competent from their training to treat racial and ethnic minorities (Doherty and Simmons 1996). About half of the adult clients of marriage and family therapists have a college or postgraduate degree, while the other half have a high school degree and/or some college. Clients range in age from 1 to 74, with a median of about 38 years of age (Doherty and Simmons 1996).

Marriage and family therapists treat a wide range of individual, couple, and family problems. Depression is most often the presenting issue (43.9 percent), followed by individual psychological problems (35.1 percent), marital problems (30.1 percent), and anxiety (21.1 percent). The DSM-IV diagnoses most frequently used are adjustment disorder (25.3 percent) and depressive disorder (including dysthymia) (22.9 percent). The other diagnoses used in more than 5 percent of the cases are anxiety disorders, including post-traumatic stress disorder (14 percent), and personality disorder (6.5 percent). V-codes are only used in 10.6 percent of all cases (Doherty and Simmons 1996).

The presenting problems treated by marriage and family therapists tend to be severe. Nearly half (49 percent) of the problems treated by marriage and family therapists are rated as severe or catastrophic; another 45 percent, moderately severe; and 6 percent, mild. The severity of client problems is further supported by the fact that 29.3 percent of clients are taking psychotropic medication; 10.2 percent had been hospitalized in the past year; and 6.1 percent were hospitalized while under treatment by a marriage and family therapist (Doherty and Simmons 1996).

Despite their focus on family systems, marriage and family therapists do not treat only couples and family units. Indeed, half of the cases seen by MFTs are individuals (49.4 percent), with 23.1 percent being couples, and 12 percent being families (Doherty and Simmons 1996).

Clients report being highly satisfied with the services of marriage and family therapists. In a recent national survey of clients, nearly all (98.1 percent) rated the services as good or excellent; 97.1 percent said they got the kind of help they wanted; and 91.2 percent said they were satisfied with the amount of help they received. Furthermore, 94.3 percent said they would return to the same therapist in the future, and 96.9 percent said they would recommend their therapist to a friend (Doherty and Simmons 1996).

Overwhelmingly positive changes in functioning also were reported by clients: 83 percent reported that their therapy goals had been mostly or completely achieved. Nearly 9 out of 10 (88.8 percent) reported improvement in their emotional health; 63.4 percent, improvement in their overall physical health; and 54.8 percent, improvement in their functioning at work (Doherty and Simmons 1996).

Treatment by marriage and family therapists is naturally brief and cost-effective. The average length of treatment for couples therapy is 11.5 sessions; 9 sessions for family therapy; and 13 sessions for individual therapy. The average fee is $80 per hour, which makes the average cost per case $780 (Doherty and Simmons 1996).

As of 1995, 37 States regulated the practice of marriage and family therapy, with most other States considering licensure bills. California was the first State to regulate the profession in 1963 (under the title

Marriage, Family and Child Counselor), followed by Michigan in 1966, and New Jersey in 1968. The most impressive growth in State regulation began in the 1980s, with the vast majority (86 percent) of State regulatory laws being adopted since 1980.

States' definition of the practice of marriage and family therapy vary in the specific language used, but are consistent with AAMFT's Model Licensure Law, as follows:

> "Marriage and family therapy" means the diagnosis and treatment of mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Marriage and family therapy involves the professional application of psychotherapeutic and family systems theories and techniques in the delivery of services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders."

While the overwhelming majority (80.8 percent) of the 46,227 marriage and family therapists nationwide hold a State marriage and family therapy license or certification, half (50.4 percent) hold additional professional licenses. This reflects the multidisciplinary nature of marriage and family therapy. The other licenses held in addition to the marriage and family therapy license include psychologist (7.2 percent), social worker (10.0 percent), professional counselor (12.5 percent) and nursing (1.1 percent) (Doherty and Simmons 1996). Just under one-third (30.4 percent) of marriage and family therapists hold only a marriage and family therapist license, and 12.4 percent hold three or more licenses. But regardless of their training, the preponderance of marriage and family therapists (60.6 percent) describe their primary professional identity as a marriage and family therapist (Doherty and Simmons 1996).

Psychosocial Rehabilitation

Psychosocial Rehabilitation (PSR) is a rapidly growing approach to working with individuals with severe mental illness in the community. Specifically, psychosocial rehabilitation programs usually provide residential services, training in community living skills, socialization services, crisis services, residential treatment services, recreation services, vocational rehabilitation services, case management services, and/or educational services. In recent years, PSR has been identified as a necessary ingredient for maintaining persons with severe mental illness in the community. PSR services reduce hospitalization, increase employment, and increase the quality of life for persons served. Thus, PSR services are an important part of mental health care in the community, addressing the practical, day to day needs, such as housing, income, work, friends, and the skills to cope with serious mental illness.

The focus of PSR activities is in teaching individuals with severe mental illness the skills necessary to attain goals of their choice in the community, and in developing innovative supports. In providing these services, PSR providers draw upon theories and practices of psychology, education, sociology, social work, and rehabilitation. In addition, PSR has been at the forefront of disability and rehabilitation movements working towards the empowerment of individuals with severe mental illness through the delivery of services, and in the integration of the client and the services into the normal life of the community. PSR has been successfully utilized with individuals who have disabilities other than mental illness, who have concurrent disabilities of substance abuse, mental retardation, hopelessness, as well as deafness, and other physical disabilities. Specialized programs have also been developed for individuals over 65 years of age.

The importance and success of the field is evidenced by its rapid growth. In 1988, 965 facilities identified themselves as offering PSR services. In 1990, 2,200 facilities were identified as offering psychosocial rehabilitation services to persons with severe mental illness. By 1996, 7,000 agencies were identified. With an average agency staff size of 16, a conservative estimate of the PSR work force is 100,000 (table 10.1).

Demographic and Training Characteristics

Similar to other mental health workers, PSR workers are predominantly female (65 percent), and white. Seventy four percent are white, 19 percent are African American, 5 percent are Hispanic and 2 percent are Asian and Native American. They have an average age of 38 and have been in the field for an average of 5 years (table 10.4). Those with advanced degrees have been in the field an average of 8 years. PSR workers can be found in all fifty States, the District of Columbia and the Virgin Islands.

Thirty-eight percent of all workers have a bachelor's degree, 22 percent have only a high school degree, 13 percent have some college or an associate degree, 24 percent have a master's degree, and 2 percent have a doctoral degree. In addition, 25 percent of all individuals with bachelor's degrees are currently working to attain a master's degree. Among individuals currently employed as PSR workers with master's or doctoral degrees, 24 percent have degrees in psychology, 36 percent in social work, 4 percent in psychiatry, 3 percent in counseling, and 3 percent in education. Sixteen percent have licenses or certificates in social work; 8 percent are certified as counselors; six percent are certified as teachers; and 3 percent are certified as addiction counselors.

As the value of PSR has become recognized, academic programs have developed which specialize in PSR, or which include PSR as a specialized part of their curriculum. Currently, throughout the nation, there are 13 Ph.D. programs; 3 combined M.D. and Ph.D. programs; 10 master's level programs; one bachelor's program, and one associate program. The number of these programs is expanding rapidly as the field grows.

Because PSR encompasses an approach, a philosophy, and patterns of interpersonal interactions, as well as didactic material, many agencies hire interested, caring people and train them on the job, through supervision, in-service training and experience. In-service training, which imparts various combinations of knowledge, attitudes and skills, is provided in 19 States, by 7 county-level mental health authorities, 21 agencies, and 15 centers or institutes, 8 of which are affiliated with universities. These workshops and training sessions, which may last from 1-3 days, typically cover principles and values of PSR; functional assessment; choosing a rehabilitation goal; employment; case management; supported housing; teaching skills; stigma/discrimination issues; cultural diversity; clinical interviewing skills; program evaluation/research; supported employment; and career development. It is typical for a practitioner to emphasize one of these fields over another.

Professional Activities

Thirty-six percent work in residential programs; 32 percent in daytime facility-based programs; 15 percent in case management; 9 percent in vocational; and 6 percent in other areas. A majority of PSR workers are employed in a single setting (table 10.5).

Currently a registry is being implemented for PSR practitioners. This registry maintains the emphasis on rehabilitation worker competencies, at the same time reflecting the increased training needs of the field. Workers may become a Registered Psychiatric Rehabilitation Practitioner if they have at least a bachelor's degree, or an Associate Psychiatric Rehabilitation Practitioner if they have less than a bachelor's degree. The exact requirements for registration will vary according to the level and area of education, number of years in the field, and amount of training received in the last three years. In addition, each registrant will be required to provide three professional references in order to become certified.

As the field of PSR has grown in size, it has developed some of the characteristics of a profession. Not only have a registry and a code of ethics been created, but also common outcome measures and best practice interventions have been identified. A literature which focuses on process as well as outcome has emerged in the major community mental health journals and newsletters. PSR is a frequent intervention of

choice for federally funded demonstration projects.

School Psychology

Professional school psychology has grown significantly over the last 25 years. In 1996 it is estimated that there are over 24,000 school psychologists in the United States, an increase of 17,000 since 1970 (Fagan and Sachs-Wise 1994). The vast majority of school psychologists are found serving in 15,000 local education agencies and 85,000 schools, in all States and territories, as well as Department of Defense schools nationally and internationally (NASP 1993; Reshly and Wilson 1992).

School psychologists are involved in delivering a broad array of activities related to the delivery of mental health services in the schools. These include: consultation with teachers, parents and school personnel about learning, social, emotional and behavior problems; developing and implementing educational programs on classroom management strategies, parenting skills, substance abuse, teaching and learning strategies; evaluating academic skills, social skills, self-help skills, personality and emotional development; and intervening directly with students and families, as well as helping solve conflicts related to learning and adjustment. School psychological services are one of the *related services* available to students with disabilities who are in need of special education and related services as part of the Individuals with Disabilities Education Act (IDEA). School psychologists, as part of the *pupil services*, are also a designated service under Title I and other titles of the 1994 Improving America's Schools Act.

Demographic and Training Characteristics

The professional association representing school psychology is the National Association of School Psychologists, which has 19,148 members (NASP 1996). Demographic data on school psychology reflected in tables 10.1, 10.2, 10.3, 10.4. 10.5, 10.6, 10.7 and 10.8 are based upon data compiled yearly by the U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS) for its *Annual Report to Congress on the Implementation of The Individuals with Disabilities Education Act* (USDOE 1991, 1994, 1995), and membership surveys (NASP 1993, 1995, 1996). The U.S. Department of Education data represent the "clinically active" professional school psychologists certified in each State who are actually providing services in the schools. This base number of "clinically active" school psychologists, combined with self report surveys of the membership of the National Association of School Psychologists, gathered yearly, provides the most accurate data available on school psychologists who are clinically trained, and data on sex, ethnicity, years of experience, and other factors found in the tables.

According to the NASP membership surveys, school psychology in its present numbers is a relatively young profession. Prior to 1975, there were reported to be about 5,000 school psychologists employed in more progressive school systems in urban/suburban areas primarily in California, New York, Pennsylvania, and Ohio (Fagan and Sachs-Wise 1994). The recognition of the civil right to education by children with disabilities increased that number to its present level, with a distribution across all communities: urban, suburban and rural. As the profession has grown, it has become increasingly more female. As 1986 survey data show, approximately 59 percent were female, and 41 percent male. Table 10.2 shows that in 1993, 69.5 percent of the professional school psychologists were female, and 30 percent male. Table 10.4 shows that nearly half have ten or fewer years of experience as professional school psychologists, the median being 8.9 years (Reshly and Wilson 1992). Ethnic information reported in survey data indicates that there are few minorities in the profession, with African American members accounting for 2.5 percent, Hispanic/Latino 3.1 percent, Asian, 1.2 percent and Native American, 0.6 percent. The ethnic distribution has remained relatively the same over the years, with a slight drop in total non-White membership of about 1 percent. When comparing 1993 data to survey data reported by Fagan (1994), table 10.4 shows school psychologists are not evenly distributed across the nation. Some States and regions have adequate school psychological services, but most regions and States do not meet the NASP standard of one school psychologist for every 1,000 students. For example, Connecticut has a ratio of about 1:800, whereas Missouri has a ratio of

1:20,000. The average is about 1:2,100 with a bi-modal distribution showing a bi-modal 37 percent having a ratio of 1:1,000 or less, and 24 percent having a service ratio of 1:2,001-1:2,500. As might be expected, affluent school systems have better ratios than do poor systems.

All professional school psychologists are required to be certified and/or licensed by the State in which services are provided. Most States use certification, and authorize the State's education agency for that responsibility. A few States (i.e. Texas) designate the Board of Examiners of Psychology to license school psychologists to function in the schools. Although requirements vary from State to State, the National Association of School Psychologists offers a national certification, (Nationally Certified School Psychologist), to all those eligible. The National Certification (NCSP) is recognized by several States for certification eligibility. The requirements are a Master's degree or higher, Specialist degree in school psychology, with a minimum of 60 graduate semester hours, a 1,200 hour internship, 600 hours of which must be in a school setting, a passing score (660) on the National School Psychology exam, and course content to ensure substantial preparation in school psychology. The students represented in table 10.8 are predominantly studying for a sixty-credit Master's or Specialist degree. Seventy-four percent of school psychologists have documented the requirements to be Nationally Certified (NCSP); 21 percent also hold a doctorate in school psychology, education or related fields. School psychologists who are members of NASP or hold the NCSP are required to abide by the *Standards for the Provision of School Psychological Services & Principles of Ethics* adopted by NASP (Revised 1992). *School Psychology Review* is a refereed journal published quarterly by the National Association of School Psychologists. With a circulation of over 19,000, it has the second largest circulation among professional psychology journals.

Nationally, there are over 212 school psychology training programs which are accredited by the NASP/NCATE. Approximately 1,800 school psychology students graduate annually from graduate training programs, earning the specialist degree (Eds). The U.S. Department of Education reports yearly that there have been, on average, over 1,100 unfilled, funded vacancies or additional certified personnel needed by the public schools.

Professional Activities

Table 10.6 shows school psychologists are typically employed in the following settings: public or private schools, universities, clinics, institutions, private practice, community agencies and hospitals. However, the majority, 94 percent, practice in primary and secondary schools. Most school psychologists are employed by local education agencies. Cooperatives are also found in rural areas and areas which have numbers of small school systems. Some school psychologists are employed by mental health agencies which provide school psychological services to the schools. Survey data indicates that of those listed as employed in a school setting on table 10.6, only 2 percent practice in private schools. There are no officially recognized sub-specialties within the profession of school psychology.

The 1989 Membership Directory of NASP did provide survey data on the percent of time members spent in various professional activities. Less than half of the school psychologists' time was spent in the assessment of children. Consultation, behavioral and other therapeutic interventions accounted for thirty percent of professional time. The remainder was spent in service training provided and received, administration, and research. Reshly and Wilson reported 55 percent of time for assessment, 42 percent for consultation and interventions and 2 percent for applied research and evaluation. Included in the process of assessment is the presentation of results to parents and school/other staff.

Sociology

The revival of the sociological practice movement can be traced back to the late 1970s (Friedman 1987), a turbulent era in higher education, in which many academic institutions -- particularly "small private liberal arts colleges, two-year private colleges, middle-level private urban universities, and a spate of remote State

colleges and universities" (Bingham 1987; Smith and Cavusgil 1984) -- experienced: 1) declining enrollments among aging "baby boomers," and increasing enrollments among non-traditional adult and minority students (Strang 1986); 2) closures, cooperative arrangements with other institutions, and mergers (Bingham 1987); and 3) reduced government funding, amid rising education costs, necessitating, in turn, the need for relief from private funding sources, such as alumni, foundations, and corporations (Bryant 1983). These changes, not typically shared by their larger, private academic counterparts, necessitated a conceptual shift in sociology away from "theory and statistical testing," characterizing the discipline's post-World War I efforts to "legitimize" itself, and toward a return to its original mission of "social reform," based on "application and intervention" (Clark 1986; Parsons 1959; Franklin 1979; Kuklick 1980; and Huber 1984, 1986). The creation of new "hands on" academic incentives -- particularly workshops, supervised field work, and internships -- were designed to attract the changing student demographic, and to effectively respond to the referenced economic constraints. They also integrated sociology departments into their respective communities, and with their publics, whereby students' substantive disciplinary interests were balanced with "more vocationally oriented courses" (Ruggiero and Weston 1986; Fleming and Francis 1980; Olzak 1981).

In an era of managed care, sociologists' entry into the heavily regulated behavioral healthcare industry has led many to realize the value of acquiring supplemental association and State professional credentials. Serving as recognizable mandates of their competence in service to the public welfare, health, and safety, and the quality of social life, sociologists understand that without practice credentials, their opportunities as unregulated applied researchers, clinical interventionists, behavioral healthcare caseworkers, and administrators will continue to decline in this interdisciplinary field. As a result, sociologists have started to organize their own accreditation and credentialing programs. The Commission on Applied and Clinical Sociology, established in February 1995, as a joint initiative of the Society for Applied Sociology, and the Sociological Practice Association (both founded in 1978, with the latter chartered as the Clinical Sociology Association), is currently preparing sociology program accreditation guidelines for departments interested in augmenting their traditional educational emphases with clinical and applied curricula. These guidelines, sensitive to evolving behavioral healthcare training and administration standards, will permit practicing sociologists to apply their unique perspectives and skills, assessments and interventions, to the complex set of interactions characterizing social relations between and among sundry behavioral healthcare populations, providers, networks, payers, employers, and their institutional environments. These concerns and practices have all too often been overlooked or underutilized in the allied healthcare marketplace. Sociologists' treatments will significantly add to the mix of existing approaches. The Commission's plan entails the development of a national sociology registry in which practitioners will become eligible for SPA certification (currently under revision), and State professional credentialing (to be included in model sociological practice legislation, sponsored by the American Sociological Association, through its Academic and Professional Affairs Program, and the Committee on Certification and Licensure). Like other professions, different classes of association and State professional credentials will be awarded on the basis of recipients' specific educational and training accomplishments. A pilot sociology accreditation program is slated to be introduced to a select number of departments in 1998, with full implementation expected in 1999. Provisions will be made to "grandfather" non-program accredited, qualified sociologists into the registry. Comparable core data will be incorporated into upcoming editions of *Mental Health, United States.*

Discussion

The information in this chapter is important in examining the current status of human resources and care delivery in mental health, particularly within the context of managed care. Unfortunately, many critical issues are not addressed by these data. Given the increasing demand for cost-effective service, it is critical that evaluations focus on determining the cost effectiveness of specific treatment and intervention outcomes. This necessary shift of attention away from the process of delivery to outcome will demand analyses of economic and clinical substitutability of mental health professionals. Presently available data do not permit

examination of these questions in an effective manner.

Other questions cannot be answered about how mental health professionals provide services. Additional information is needed on characteristics of the providers, clientele treated, actual services delivered, sources of referrals, and relationships with other health and social service professionals. This information deficit plagues all mental health professions. Given the severe consequences of psychiatric disability, it is essential that relevant policy makers work together to improve the quality of information currently available on human resources in mental health.

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Table 10.1. Changes in supply of clinically trained mental health personnel, by discipline and total number of hours worked, for specified years.

Hours worked by discipline	1982	1983	1984	1988	1989	1992	1993	1994	1995	1996
Psychiatry[1]										
35 hours or more										
Less than 35 hours										
Total	25,784			29,531		32,498	32,788		33,486	
Psychology										
35 hours or more		39,855			48,785				57,948	
Less than 35 hours		4,725			7,745				11,869	
Total		44,580			56,530				69,817	
Social Work										
35 hours or more					65,880					
Less than 35 hours					15,857					
Total					81,737	86,378	88,889	90,303	93,245	94,396 (188,792)[2]
Psychiatric nursing										
35 hours or more			7,703					4,248		
Less than 35 hours			2,331					1,362		
Total			10,034[3]	3,497[4]		5,033[4]		5,610[5]	6,8004[4]	
Counseling										
35 hours or more										
Less than 35 hours										
Total										61,100
Marriage and Family Therapy[6]										
35 hours or more									31,203	
Less than 35 hours									15,024	
Total									46,227	
Psychosocial Rehabilitation										
35 hours or more								29,435		84,100
Less than 35 hours								5,565		15,900
Total				20,909				35,000		100,000
School Psychology[7]										
35 hours or more										
Less than 35 hours										
Total						21,012	21,693			

[1]The American Medical Association (AMA) Physician Characteristics and Distribution in the United States which includes physicians who are self-designated or self-identified as psychiatrists. Psychiatric residents and inactive psychiatrists have been excluded.

[2]The number in parenthesis is the total clinically trained social workers from a conservative estimate that the 94,396 National Association of Social Workers (NASW) members are only fifty percent of the total social work workforce.

[3]Previous year estimates published in Mental Health United States, 1990 were based on nurses with graduate degrees in psychiatric nursing, not on the population of certified nurses. In 1988 it was estimated that there were: 10,567 such employed nurses; in 1984 there were 10,034.

These figures represent clinically active marriage and family therapists and are derived from the 1995 American Association for Marriage and Family Therapist Practice Patterns Survey.

[4]These figures represent all Certified Specialists is Psychiatric and Mental Health Nursing, not just those employed.

[5]Sample responses of 675; 10 retirees, 23 unemployed, 4 unemployed students, and 16 whose employment status is unknown are deleted (n=53), resulting in a sample of 622. Therefore it is estimated that there are 388 trained, but either not working or working status is unknown.

[6]These figures represent clinically active marriage and family therapists and are derived from he 1995 American Association for Marriage and Family Therapist Practice Patterns Survey

[7]The estimated number of persons in School Psychology is based upon survey data of members of the National Association of School Psychologists. The total is 19,162 in 1996. The U.S. Department of Education reports that 20,138 school psychologists were employed in schools during 1992-93.

Table 10.2. Percentage of clinically trained mental health personnel, by discipline, sex, age, and race for specified year

Socio-demographic characteristics	Discipline and year							
	Psychiatry[1] 1996	Psychology 1995	Social Work 1996	Psychiatric Nursing 1994	Counseling 1996	Marriage and[2] Family Therapy 1996	Psychosocial Rehabilitation 1994	School Psychology 1993
Total (N)	(28,970)	(69,817)	(92,841)	(6,000)	(61,100)	(46,227)	(9,437)	(21,693)
Male (N)	(21,651)	(39,098)	(21,497)	(289)	(13,300)	(20,802)	(3,223)	(6,077)
Under 35	3.4	2.9	5.5	6.3	NA	2.2	38.4	11.5
35-39	8.6	7.5	8.5	12.5		6.5	20.1	6.0
40-44	12.3	17.5	18.1	37.5		12.1	17.7	19.1
45-49	13.9	25.8	26.8	21.9		22.5	10.7	28.0
50-54	13.6	19.4	20.0	9.4		20.3	5.5	20.1
55-59	11.9	10.6	12.4	3.1		13.9	3.6	9.5
60-64	9.9	6.7	6.9	9.4		10.9	2.3	2.9
65-69	8.1	5.4	1.3	0.0		6.4	1.2	1.3
Over 69	18.3	4.3	0.4	0.0		5.2	0.5	0.6
American Indian/Alaska Native	0.1	0.6	0.5	3.1		0.9	0.4	0.7
Asian/Pacific Islander	7.5	1.1	1.8	0.0		0.9	2.0	0.5
Hispanic	4.4	2.1	3.2	3.1		0.9	6.4	2.2
Black (not Hispanic)	1.7	1.5	4.2	3.1		2.1	20.8	1.3
White (not Hispanic)	76.0	94.5	88.7	90.6		94.8	69.8	94.0
Not specified	10.3	0.2	1.6	0.0		0.4	0.6	1.5
Female (N)	(7,319)	(30,719)	(71,344)	(5,711)	(47,800)	(25,425)	(6,114)	(15,616)
Under 35	8.2	7.7	11.8	2.7	NA	2.2	44.3	23.0
35-39	18.2	13.3	11.7	12.9		7.3	15.5	7.0
40-44	20.8	20.0	17.6	22.3		13.8	14.5	18.4
45-49	16.9	23.8	21.6	24.8		22.5	10.7	22.3
50-54	12.0	16.2	18.9	21.6		19.9	7.4	15.5
55-59	7.4	8.1	10.9	9.7		13.0	4.1	9.6
60-64	5.0	5.2	5.2	4.8		8.3	2.3	2.6
65-69	3.6	3.1	1.7	0.7		6.5	0.8	1.1
Over 69	7.9	2.5	0.5	0.5		6.5	0.4	0.4
American Indian/Alaska Native	0.1	0.6	0.5	0.5		1.1	NA	0.4
Asian/Pacific Islander	13.4	1.4	1.7	1.0		0.4		1.0
Hispanic	4.2	2.7	2.5	0.6		0.7		2.0
Black (not Hispanic)	3.8	2.5	5.2	1.9		1.1		2.3
White (not Hispanic)	73.4	92.7	89.0	95.3		96.0		93.6
Not specified	5.1	0.1	1.1	0.6		0.7		0.7

NA = Data not available

[1]1996 American Psychiatric Association membership, excluding medical students, psychiatric residents, corresponding psychiatrists, and inactive members.

[2]These figures represent clinically active marriage and family therapists and are derived from the 1995 American Association for Marriage and Family Therapy Marriage and Family Therapist Practice Patterns Survey.

Table 10.3. Estimated number of clinically active (CA) or clinically trained (CT) mental health personnel and rate per 100,000 civilian population, by discipline: United States and each State for specific year

Part A. Psychiatry, Psychology, Social Work, and Psychiatric Nursing

Region and State	Psychiatry (1996)		Psychology (1995)[1]		Social Work (1996)[1]		Psychiatric Nursing (1995)[1,2]	
	No. of CA Persons	Rate	No. of CT Persons	Rate	No. of CT Persons	Rate	No. of CT Persons	Rate
United States	29,803	11.3	53,060	20.2	94,218	35.9	6,800	2.6
New England	2,835	21.3	5,328	40.0	10,175	76.4	1,452	10.9
Connecticut	709	21.6	862	26.3	2,326	71.0	343	10.5
Maine	144	11.6	313	25.2	725	58.4	75	6.0
Massachusetts	1,566	25.8	3,268	53.8	5,469	90.0	825	13.6
New Hampshire	158	13.8	343	29.9	611	53.2	70	6.1
Rhode Island	144	14.5	217	21.9	750	75.8	93	9.4
Vermont	114	19.5	325	55.6	294	50.3	46	7.9
Middle Atlantic	6,832	17.9	11,280	29.6	22,559	59.1	1,333	3.5
New Jersey	1,039	13.1	2,052	25.8	4,351	54.8	283	3.6
New York	4,233	23.3	5,752	31.7	14,340	79.1	688	3.8
Pennsylvania	1,560	12.9	3,476	28.8	3,868	32.0	362	3.0
East North Central	3,774	8.7	7,558	17.4	16,915	38.9	609	1.4
Illinois	1,189	10.1	2,134	18.0	5,369	45.4	119	1.0
Indiana	372	6.4	760	13.1	1,956	33.7	74	1.3
Michigan	873	9.1	1,140	11.9	5,168	54.1	163	1.7
Ohio	895	8.0	2,764	24.8	2,844	25.5	205	1.8
Wisconsin	445	8.7	760	14.8	1,578	30.8	48	0.9
West North Central	1,462	8.0	4,512	24.6	4,925	26.8	357	1.9
Iowa	148	5.2	546	19.2	742	26.1	36	1.3
Kansas	255	9.9	342	13.3	907	35.4	47	1.8
Minnesota	393	8.5	2,166	47.0	1,078	23.4	148	3.2
Missouri	437	8.2	1,040	19.5	1,616	30.4	70	1.3
Nebraska	122	7.5	227	13.9	364	22.2	32	2.0
North Dakota	54	8.4	81	12.6	91	14.2	17	2.7
South Dakota	53	7.3	110	15.1	127	17.4	7	1.0
South Atlantic	5,083	10.8	7,539	16.0	14,063	29.9	1,316	2.8
Delaware	85	11.9	160	22.3	222	31.0	22	3.1
District of Columbia	282	50.9	871	157.2	598	107.9	30	5.4
Florida	1,255	8.9	1,900	13.4	3,230	22.8	195	1.4
Georgia	635	8.8	1,094	15.2	1,373	19.1	141	2.0
Maryland	1,026	20.3	1,368	27.1	3,450	68.4	405	8.0
North Carolina	645	9.0	985	13.7	1,776	24.7	117	1.6
South Carolina	308	8.4	312	8.5	717	19.5	88	2.4
Virginia	719	10.9	532	8.0	2,402	36.3	285	4.3
West Virginia	128	7.0	317	17.3	295	16.1	33	1.8

Table 10.3. Number of clinically active (CA) or clinically trained (CT) mental health personnel and rate per 100,000 civilian population, by discipline: United States and each State for specific year (Continued)

Part A. Psychiatry, Psychology, Social Work, and Psychiatric Nursing

Region and State	Psychiatry (1996)		Psychology (1995)		Social Work (1996)		Psychiatric Nursing (1995)[2]	
	No. of CA Persons	Rate	No. of CT[1] Persons	Rate	No. of CT[1] Persons	Rate	No. of CT[1] Persons	Rate
East South Central	1,089	6.8	1,609	10.0	2,824	17.6	214	1.3
Alabama	251	5.9	310	7.3	596	14.0	55	1.3
Kentucky	293	7.6	379	9.8	765	19.8	67	1.7
Mississippi	124	4.6	139	5.2	306	11.3	20	0.7
Tennessee	421	8.0	781	14.9	1,157	22.0	72	1.4
West South Central	2,098	7.3	2,894	10.0	6,197	21.5	262	0.9
Arkansas	163	6.6	338	13.6	453	18.2	13	0.5
Louisiana	368	8.5	325	7.5	1,623	37.4	38	0.9
Oklahoma	201	6.1	331	10.1	661	20.2	25	0.8
Texas	1,366	7.3	1,900	10.1	3,460	18.5	186	1.0
Mountain	1,362	8.7	3,087	19.7	4,662	29.8	365	2.3
Arizona	348	8.3	845	20.0	1,099	26.1	85	2.0
Colorado	452	12.1	1,130	30.2	1,526	40.7	141	3.8
Idaho	65	5.6	114	9.8	241	20.7	9	0 8
Montana	62	7.1	150	17.2	223	25.6	17	2.0
Nevada	86	5.6	143	9.3	295	19.3	13	0.8
New Mexico	185	11.0	267	15.8	502	29.8	62	3.7
Utah	137	7.0	360	18.5	678	34.8	29	1.5
Wyoming	27	5.6	78	16.3	98	20.4	9	1.9
Pacific	5,268	12.6	9,253	22.1	11,898	28.4	868	2.1
Alaska	60	10.0	92	15.3	596	98.8	33	5.5
California	4,161	13.2	7,440	23.6	7,611	24.1	376	1.2
Hawaii	159	13.4	239	20.1	747	62.9	27	2.3
Oregon	311	9.9	463	14.7	1,255	40.0	87	2.8
Washington	577	10.6	1,019	18.8	1,689	31.1	345	6.4

[1]Psychology, Social Work, and Psychiatric Nursing, count is for clinically trained, because count is more accurate.
[2]Psychiatric nursing: 24 individuals live in foreign countries.
Source: American Nurses Credentialing Center, 1996, p. 4.

Table 10.3. Number of clinically active (CA) or clinically trained (CT) mental health personnel and rate per 100,000 civilian population, by discipline: United States, each region and State for specific year

Part B. Counseling, Marriage and Family Therapy, Psychosocial Rehabilitation, and School Psychology

Region and State	Counseling (1996)		Marriage and Family Therapy (1995)		Psychosocial Rehabilitation (1996)		School Psychology (1993)	
	No. of CT[1] Persons	Rate	No. of CA Persons	Rate	No. of CA Persons	Rate	No. of CA Persons	Rate
United States	48,436	18.4	46,227	17.6	100,000	38.1	20,227	7.7
New England	3,336	25.1	1,994	15.0	12,200	91.6	1,450	10.9
Connecticut	201	6.1	616	18.8	3,000	91.6	580	17.7
Maine	457	36.8	66	5.3	1,000	80.6	80	6.4
Massachusetts	2,463	40.5	1,136	18.7	4,600	75.7	511	8.4
New Hampshire	53	4.6	80	7.0	1,900	165.5	114	9.9
Rhode Island	27	2.7	63	6.4	700	70.7	133	13.4
Vermont	135	23.1	33	5.6	1,000	170.9	32	5.5
Middle Atlantic	8,154	21.4	2,680	7.0	22,400	58.7	4,703	12.3
New Jersey	2,211	27.8	1,216	15.3	4,100	51.6	1,110	14.0
New York	3,333	18.4	771	4.3	7,700	42.5	2,802	15.4
Pennsylvania	2,610	21.6	693	5.7	10,600	87.8	791	6.6
East North Central	10,420	24.0	3,829	8.8	10,700	24.6	4,176	9.6
Illinois	196	1.7	545	4.6	3,100	26.2	1,438	12.2
Indiana	176	3.0	1,407	24.2	600	10.3	374	6.4
Michigan	3,568	37.4	1,190	12.5	3,000	31.4	818	8.6
Ohio	5,293	47.5	259	2.3	3,400	30.5	938	8.4
Wisconsin	1,187	23.2	428	8.4	600	11.7	608	11.9
West North Central	1,992	10.9	1,664	9.1	10,000	54.5	1,466	8 0
Iowa	92	3.2	155	5.5	1,700	59.8	320	11.3
Kansas	185	7.2	310	12.1	1,100	42.9	374	14.6
Minnesota	201	4.4	704	15.3	2,000	43.4	449	9.7
Missouri	890	16.7	377	7.1	3,400	63.9	104	2.0
Nebraska	257	15.7	69	4.2	500	30.5	137	8.4
North Dakota	183	28.5	16	2.5	500	78 0	31	4.8
South Dakota	184	25.2	33	4.5	800	109.7	51	7.0
South Atlantic	7,358	15.7	3,516	7.5	18,800	40.0	2,712	5.8
Delaware	37	5.2	15	2.1	200	27.9	72	10.0
District of Columbia	0	0.0	52	9.4	700	126.4	100	18.1
Florida	2,433	17.2	1,608	11.4	5,700	40.2	589	4.2
Georgia	937	13.0	578	8.0	1,000	13.9	465	6.5
Maryland	938	18.6	221	4.4	6,900	136.9	254	5.0
North Carolina	503	7.0	477	6.6	1,200	16.7	386	5.4
South Carolina	737	20.1	253	6.9	500	13 6	288	7.8
Virginia	1,150	17.4	288	4 4	2,500	37.8	447	6.8
West Virginia	623	34.1	24	1.3	100	5.5	111	6.1

Table 10.3. Number of clinically active (CA) or clinically trained (CT) mental health personnel and rate per 100,000 civilian population by discipline: United States, each region and State for specific year (Continued)

Part B. Counseling, Marriage and Family Therapy, Psychosocial Rehabilitation, and School Psychology

Region and State	Counseling (1996)		Marriage and Family Therapy (1995)		Psychosocial Rehabilitation		School Psychology (1993)	
	No. of CT[1] Persons	Rate	No. of CA Persons	Rate	No. of CA Persons	Rate	No. of CA Persons	Rate
East South Central	1,852	11.5	738	4.6	2,400	14.9	530	3.3
Alabama	704	16.6	137	3.2	600	14.1	95	2.2
Kentucky	402	10.4	260	6.7	1,000	25.9	142	3.7
Mississippi	210	7.8	87	3.2	200	7.4	47	1.7
Tennessee	536	10.2	254	4.8	600	11.4	246	4.7
West South Central	7,363	25.5	5,756	20.0	5900	20.5	719	2.5
Arkansas	348	14.0	70	2.8	800	32.2	82	3.3
Louisiana	871	20.1	121	2.8	1,200	27.6	268	6.2
Oklahoma	683	20.8	733	22.4	300	9.2	84	2.6
Texas	5,461	29.2	4,832	25.8	3,600	19.2	285	1.5
Mountain	4,195	26.8	1,675	10.7	3800	24.3	1,504	9.6
Arizona	799	18.9	357	8.5	1,700	40.3	407	9.6
Colorado	1,209	32.3	329	8.8	300	8.0	368	9.8
Idaho	334	28.7	44	3.8	0	0.0	100	8.6
Montana	402	46.2	30	3.4	200	23.0	110	12.6
Nevada	21	1.4	402	26.3	200	13.1	125	8.2
New Mexico	1,263	75.0	102	6.1	900	53.4	70	4.2
Utah	8	0.4	377	19.3	200	10.3	279	14.3
Wyoming	159	33.1	34	7.1	300	62.5	45	9.4
Pacific	3,766	9.0	24,375	58.1	13800	32.9	2,967	7.1
Alaska	34	5.6	71	11.8	0	0.0	68	11.3
California	1,407	4.5	23,084	73.1	11,300	35.8	2,260	7.2
Hawaii	57	4.8	63	5.3	500	42.1	17	1.4
Oregon	637	20.3	364	11.6	1,000	31.8	97	3.1
Washington	1,631	30.0	793	14.6	1,000	18.4	525	9.7

[1]Counseling count is for clinically trained, because count is more accurate.

Table 10.4. Percentage of clinically trained mental health personnel, by number of years since completion of highest professional degree, for specified years

Discipline	(N)	Number of years since completion						
		0-2	3-5	6-10	11-15	16-20	21+	Not Specified
		Percent						
Psychiatry (1996)[1]	(28,970)	0[2]	2.5[2]	10.8	13.6	12.7	60.4	-
Psychology (1995)	(69,817)	4.7	7.9	19.1	21.1	19.0	21.1	-
Social Work (1996)	(94,396)	8.7	15.7	20.6	21.2	16.1	17.6	-
Psychiatric Nursing (1994)	(6,000)	2.9	11.7	26.8	27.2	18.8	12.6	-
Counseling (1996)[3]	(52,421)	29.8	38.9	15.5	6.9	3.6	5.3	-
Marriage and Family Therapy (1996)[4]	(46,227)	2.3	9.1	27.4	27.9	20.6	13.0	-
Psychosocial Rehabilitation (1994) . .	(9,437)	2.3	3.2	16.3	18.9	18.7	40.6	-
School Psychology (1996)	(21,693)	N/A	29.6	17.7	17.1	19.9	15.6	-

NA = Data not available

[1]1996 American Psychiatric Association membership, excluding medical students, psychiatric residents, corresponding psychiatrists, and inactive members.

[2]Time frame includes psychiatric residents who do not qualify as clinically trained mental health personnel.

[3]While this group is clinically trained, they can not practice independently until 2 years of supervised practice is gained.

[4]These figures represent clinically active marriage and family therapists and are derived from the 1995 American Association for Marriage and Family Therapy Marriage and Family Therapist Practice Patterns Survey.

Table 10.5. Percentage of clinically active mental health personnel, by discipline, employment status, and number of employment settings for specified years

Employment Status	Psychiatry[1] 1988	Psychology 1995	Social Work 1996	Psychiatric Nursing 1994	Counseling 1996	Marriage/ Family Therapy[2] 1995	Psychosocial Rehabilitation 1994	School Psychology 1993
	Discipline and Year							
Full time (N)	(14,461)	(42,979)	NA	(3,617)	(37,454)	(31,203)		(20,274)
	%	%	%	%	%	%	%	%
One Setting	22.1	49.7		45.0	NA	60.4	77.5	90+
Two or more settings . . .	77.9	50.3		55.0		39.6	22.5	NA
Part time (N)	(1,930)	(10,052)	NA	(1,163)	(23,646)	(15,024)		NA
	%	%	%	%	%	%	%	%
One Setting	41.2	62.5		57.4	NA	66.2	54.8	
Two or more settings . . .	58.8	37.5		42.6		33.8	45.2	

NA = Data not available

[1]1988-89 American Psychiatric Association Professional Activity Survey (PAS).
[2]These figures are derived from the 1995 American Association for Marriage and Family Therapy Marriage and Family Therapist Practice Patterns Survey.

Table 10.6. Percentage of clinically active mental health personnel, by discipline and primary and secondary employment setting, for specified years

Employment setting	Psychiatry 1994[1]	Psychology 1995	Social Work 1996	Psychiatric Nursing 1994	Counseling 1996	Marriage and Family Therapy[3] 1996	Psychosocial Rehabilitation 1994	School Psychology 1996
	Discipline and year							
Primary employment setting (N)	(20,579)	(53,061)	(57,181)	(4,780)	(52,421)	(46,134)	NA	(9,283)
Hospital	28.2	12.3	19.2	29.4	6.3	3.2		0.0
Mental health setting	16.2		0.7					
Other health setting	12.0		18.5					
Clinic	10.2	6.5	20.2	24.0	19.9	19.4		1.1
Mental health setting	8.7		2.6					1.1
Other health setting	1.5		17.6					0.0
Academic setting	8.1	14.3	8.6	13.7	26.3			94.7
University/College		11.2	0.9		11.1			0.4
Elementary/Secondary Schools		3.1	7.7		15.2			94.3
Individual practice	37.7	41.7	20.7	16.1	43.4			2.1
Group practice	7.9	11.3	7.2	8.5		} 65.2		
Nursing home	0.2	0.2	5.0	1.9[2]				
Social service agency	0.8	--	16.2					0.0
Other/not specified	6.9	14.2	2.9	6.4	4.1	12.2		2.2
Secondary employment setting (N)	(14,773)	(24,541)	(14,046)	(2,484)	NA	(14,053)	NA	NA
Hospital	38.4	8.9	6.4	12.7				
Mental health setting	20.7		0.3			11.9		
Other setting	17.7		6.1					
Clinic	14.9	5.1	15.1	12.4		33.1		
Mental health setting	13.7		2.5					
Other setting	1.2		12.6					
Academic setting	12.4	20.5	3.3	16.5				
University/College		17.9	1.8					
Elementary/Secondary Schools		2.6	1.5					
Individual practice	15.7	37.4	43.8	33.7		33.1		
Group practice	4.9	9.4	15.0	12.4				
Nursing home	2.2	0.6	4.7	3.[2]				
Social service agency	1.3	--	8.8					
Other/not specified	10.2	18.1	2.9	9.3		21.9		

NA = Data not available

[1]1994 American Psychiatric Association Membership Directory Survey, (APA).

[2]Includes other residential settings.

[3]These figures represent clinically active marriage and family therapists and are derived from the 1995 American Association for Marriage and Family Therapy Marriage and Family Therapist Practice Patterns Survey.

Table 10.7. Percentage of clinically trained mental health personnel involved in each type of work activity, by discipline, for specified years[1]

Type of work activity	Discipline and year							
	Psychiatry[1] 1988	Psychology 1995	Social Work 1996	Psychiatric Nursing 1994-95	Counseling[3] 1996	Marriage & Family Therapy[4] 1995	Psychosocial Rehabilitation 1994	School Psychology[5] 1996
(N)	(19,498)	(69,817)	(94,396)	(5,610)[2]	(61,100)	(46,227)	NA	NA
	%	%	%	%	%	%	%	%
Patient Care/Direct Service	84.6	76.3	91.7	93.8	73.4	88.4	96.1	67.0
Research	17.4	19.7	1.3	25.1	.1	16.5	NA	4.0
Teaching	49.0	31.7	11.1	58.9	8.9	46.7	NA	0.0
Administration	52.5	27.4	34.9	51.9	6.8	56.0	10.1	5.0
Other Activities	43.8	30.9	14.0	84.2	10.8	34.1	NA	23.0

NA = Data not available

[1]1988-89 American Psychiatric Association Professional Activity Survey (PAS).

[2]Percentages will not sum to 100 because clinically trained mental health personnel can be invoked in more than one type of work activity.

[3]Percents are based upon primary work activity.

[4]Due to missing values on the variables necessary to calculate these estimates the percentages are based on 387/622 respondents.

[5]These figures represent clinically active marriage and family therapists and are derived from the 1995 American Association for Marriage and Family Therapy Marriage and Family Therapist Practice Patterns Survey.

Table 10.8. Number of trainees by discipline for selected academic years, United States, 1979-90.

Number of trainees	Academic Year 1984-85	1989-90	1994-95
		Psychiatry[1]	
Total	5,312	6,072	6,089
Full time	NA	6,011	6,007
Part time	NA	61	55
First Year full time	843	1,178	1,277
Residencies completed	1,295	1,371	1,442
		Psychology[2,3,4]	
Total	14,586	16,853	18,773
Full time	11,260	13,372	16,565
Part time	3,326	3,481	2,208
First year full time	NA	2,335	3,222
Doctorates awarded	1,968	2,358	2,483
		Social Work	
Juniors and seniors in B.A			
Programs full time	14,581	17,688	24,536
Master's degree students			
Total	21,999	27,420	33,212
Full time	14,055	17,475	21,622
Part time	7,944	9,945	11,590
Doctoral students			
Total	1,430	1,794	2,097
Full time	702	838	1,102
Part time	728	956	995
Degrees awarded			
BSW	6,347	7,250	10,511
MSW	8,798	10,063	12,856
DSW	181	247	294
		Psychiatric Nursing[5]	
Total	1,934[6,7]	1,853	1,674
Full time	677		439
Part time	1,257		1,235
Degrees awarded/training completed	771	643	568[8]
		Counseling	
Total			29,906
Master degree students			28,270
Doctoral students			1,636
		Marriage and Family Therapy[9]	
Total			6,776
Students in COAMFTE Accredited Programs[2]			
Master's degree students			971
Doctoral degree students			159
Post graduate students			147
Students in other accredited programs			
Pre-degree students			3,369
Post-degree supervision students			2,130
Supervision students			NA
		Psychosocial Rehabilitation	
		School psychology	
Total			4,404
Specialist degree awarded			1,800

(footnotes on next page)

[1]American Psychiatric Association Annual Census of Residents.

[2]Numbers for students are derived from 1994-95 total using percentages based on 1993-94 distributions into full and part-time and first year full-time.

[3]Counts represent accredited programs only and therefore are an under count of the actual students in doctoral programs in psychology in the health service provider subfields.

[4]Doctorates awarded include Ph.Ds reported by National Research Council as well as 630 Psy.Ds degrees estimated by APA's Research Office. Psy.Ds are under counted in this instance.

[5]1979 data includes students enrolled in advanced clinical practice only, resulting in an undercount. It omits students studying psychiatric nursing in the functional area of teaching. During 1985-88 (years for which data are available), an additional 3.4-9.5 percent of full time students and an additional 4-8.9 percent of part time students were enrolled in the teaching area. It is an estimate based on knowing that these were 941 full time advanced clinical practice students in psychiatric nursing, and that for all master's students, 48.8 percent were enrolled on a full time basis.

[6]1984-85 enrollment figure is an estimate. The number of full time students was 677: based on 35 percent of all master's students being full time, this number was estimated to reflect an expected 1,257 part time students.

[7]1984 and 1989 data contain students enrolled in both advanced clinical practice and teaching. The sum of enrollments in advanced clinical practice and teaching make up the universe of master's students in Psychiatric Nursing. According to P. Rosenfeld, Director of Research at the National League of Nursing, rarely will a psychiatric nursing student be classified within any of the other available classifications for graduate students.

[8]95-94 academic year.

[9]The count of students in COAMFTE programs are from the 1995 or 1994 annual reports to the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) from the programs COAMFTE accredits in the United States. The count of students in other accredited programs are from the membership database of the American Association for Marriage and Family Therapy (AAMFT).

Appendix A

Sources and Qualifications of Data - Chapter 3

Behavioral Health Company A

Behavioral Health Company A (BHCA) is a behavioral MCO which provides mental health service for close to three million individuals. The philosophy of this MCO focuses on the management of care by well-trained mental health professionals who have had broad experience in direct delivery of care. BHCA feels that through responsible and clinically sound care management every individual who is in need of mental health service can be offered an appropriate level and amount of service, even though the need for managing care is a by-product of limited resources. BHCA believes that it has three customers with which it works: the employer, the patient, and the provider. The role of the MCO is to balance the priorities of each of these constituencies, a task made difficult by the fact that they have a great potential to be in conflict with each other.

A prime customer is the employer who has made the decision to separate the management of the mental health benefit from the rest of its health insurance coverage. In some instances, it is an insurance company or an HMO[1] which is buying the mental health coverage on behalf of an employer. The employer wants the provision of adequate levels of mental health care, employee satisfaction, and the minimization of cost. Another primary customer is the individual employee who is designated as the client, member, consumer, and/or beneficiary who requires mental health care. The client is primarily concerned with receiving the best possible care at affordable cost. While BHCA feels strongly that meeting the needs of clients is of paramount importance, it must also operate within the context set by the employer, the primary customer who is paying the bulk of the care costs. The third customer is the provider of service (individual practitioners, practice groups, and facilities). This group wants to be able to provide care in the manner they feel is most appropriate while at the same time obtaining acceptable compensation for their services. BHCA holds to the belief that its role as an MCO is to best meet the needs of all three of its customers.

BHCA operates under the principle that the provision of the most appropriate level and amount of care not only is in the patient's best interest, but, over time, also costs less. Within this context, those who have the highest level of need will be able to receive the care they require. This can happen in a cost-effective manner by making sure that individuals receive the most appropriate care, not necessarily a higher level of care. The process of care management facilitates the movement among levels of care so that an individual is never in a care level that is higher, and more costly, than is necessary. The cost saving that is realized can be used to subsidize the care of others and to allow longer individual treatment courses. For those in the lower levels of care, it means being able to access treatment when an acute mental illness impedes their ability to function at an age appropriate level. BHCA believes that when managed care is provided in a clinically responsible manner, ongoing assessment and assigning care at the most appropriate level act to provide services in a systematic and consistent manner. BHCA warns, however, that when the assignment of level of care is performed with cost as a higher priority than need of care, managed care becomes a process which limits access to care and/or often leads to care provided at an inappropriately high or low level.

The BHCA key to balancing the level of care with the client's need is high-grade care management. It feels that care management must be at such a professional level that valid, consensual decisions can be made. Care managers must be able to make clinical assessments of risk and therapeutic need through the gathering of information from the client and professionals working with the client. The care manager often has the

[1] BHCA does not provide mental health management services for HMOs, although other MCOs do.

advantage of having a historical perspective of working with the client over the course of several episodes of care, which on-site professionals very often do not have, as patients move from one service modality and provider to another. In addition, at BHCA, care management is performed by what it calls, a clinical care manager (CCM). The CCM has at his or her disposal a backup of senior professional supervisors, including psychiatrists. Together these individuals work as a clinical team to validate or modify the CCM's decisions. Based on the information from the clinical team, the CCM then forms a team with the client, family, treating professionals, and, when appropriate, facility staff.

Another powerful factor in the provision of the kind of care management practiced at BHCA is the availability of a provider network, which can offer the full range of services necessary to provide the most appropriate levels of care, and individual practitioners who understand the value of the care management and related consultation available through the CCM and the BHCA consultants. Over time, the BHCA provider network has become more sophisticated in working with managed care in general and BHCA's style in particular. Clinicians adapt to conducting frequent assessments of need and to learning the value of working from a set of short-term goals related to risk and level of functioning. It is essential that this clinical network be of sufficient quality so that CCMs can rely on the information that is presented to them as they work to develop treatment plans and certify varying levels of care. Providers who are found to be highly competent and/or trustworthy are encouraged to take more cases, and those who are not are dropped from the network. BHCA is encouraging the development of multidisciplinary practice groups that have the desire to participate in managed care and the capacity to develop a broad array of services; these are known in the business as "core," "preferred," "clinical," or "anchor" groups.

At BHCA, decisions concerning the intensity of care required by an individual at any point are made on the basis of clinical guidelines for level of care. These have been developed internally and look at three dimensions of the patient's clinical situation: 1) disturbances in affect, behavior, thought processes, and judgment, 2) risk of suicide and/or harm to others, and 3) adequacy of the support network. Using specific criteria in each of these areas aids the CCM in reaching agreement with the treating clinician on the proper level of care, whether residential treatment, acute inpatient hospitalization, day treatment/partial hospitalization, or outpatient treatment. There are specific guidelines for children and adolescents, which also include provisions for in-home intensive services. There are also specific chemical dependency care guidelines for children and adolescents. These guidelines are written so that they can lead qualified clinicians through a fact-finding process that will organize their clinical judgments and create an atmosphere of collegiality with the providers who are working face-to-face with the patient.

The role of the CCMs (all of whom, as their name implies, are seen as truly clinical specialists) is central to BHCA's provision of service. CCMs are clinically trained in social work, psychology (doctoral level), clinical nursing, or marriage and family therapy. Each CCM is licensed to practice his or her specialty. BHCA prefers they have had a broad background of clinical experience in both hospital and outpatient care, so that they have a solid base for assessing treatment plans. BHCA believes that this high level of clinician is necessary for two reasons. First, only at this level can responsible clinical decisions be made, especially those that assess risk to self and others. Secondly, CCMs are expected to act as clinical peers with providers who are working directly with patients. It is through this teaming of competent CCMs and managed care friendly providers of quality care that makes managed care work at BHCA. When in doubt, CCMs are trained to authorize more care rather than less.

The third factor in the case management process is the benefit package that is designed by the employer who provides the insurance. The benefit package determines how much and which types of service each beneficiary is entitled to, and how much co-pay is required. BHCA prefers the fewest limitations to benefits the employer will allow. In addition, it suggests a benefit package which permits "flexing of benefits," whereby CCMs can substitute a more appropriate service when necessary, including nontraditional services considered to be "alternative." Many employers adopt this type of plan. However, although BHCA can demonstrate that a well-managed unlimited mental health benefit is the best and most cost-effective strategy,

many more employers still are not convinced; many of the benefit packages that the CCMs and providers have to work from are limited and can sometimes lead to, if not encourage, inappropriate levels of care. Given BHCA's policies of more rather than less service, this often means care becomes more intensive and costly than required.

Agency Description and Population:

BHCA's scope is national, providing the mental health component to more than 400 companies. It currently manages the mental health care for more than three million lives through its provider network; it also performs utilization review for insurers who cover another three million lives.

As a behavioral health MCO, BHCA has contracts to manage only the provision of mental health and substance abuse services to circumscribed populations. Most often these contracts are with corporations as part of the health care benefit for their employees. In other cases, the contract is with an insurance company to meet the mental health needs of all or part of its health-insured population. With each of these "customers," BHCA agrees to work within the confines of a contracted "benefit package" that defines the exact population and a set of service provision guidelines and limits. The clients covered are insured employees and their dependents.

There are several basic insurance models under which BHCA operates with its various employer customers. Under some contracts, BHCA accepts full risk for the cost of all mental health care for the population within the limits defined in the benefit package. Under this arrangement, BHCA negotiates a capitated rate for each member of the insured population and must provide the full range of care necessary with the funds collected. On the other hand, in most contracts the employer takes full risk for the costs of care. Under this arrangement, the employer pays for all care, while, for a fixed administrative fee, BHCA acts as the care manager. A growing number of contracts fall in between, with BHCA assuming partial risk. The mechanism for this usually takes the form of a contract in which the employer still takes primary risk for the cost of the care. However, BHCA manages this care for a variable fee based on performance contracts, guaranteeing that if care cost are too high, the fee is reduced. In a few instances, these same contracts allow for greater BHCA profits if lower costs are realized. Each of these are typical managed care contracts.

The management of care is controlled in two ways. The first of these is by developing a provider network that can offer good care and accepts the treatment philosophy inherent in managed care: individualized short-term care for acute mental health problems with minimization of hospitalization and increased use of hospital alternatives. Long-term care is reserved for a small percentage of beneficiaries, with the extent of that care defined and limited, and the benefit package delineated by the employer. BHCA is finding an increasing number of clinicians in solo practice, practice groups, and hospitals who accept the conditions dictated by these philosophies as appropriate care. These providers work for contracted fee for service rates, which are lower than the going community rates in many places. In return, they get referrals and assured payment.

The second method of controlling care is through the process of care management. This is the process through which clients access and utilize care. When an employee or a dependent beneficiary is in need of mental health care, he or she calls an 800 number and has access to an intake division of BHCA. The employees of this section, who are clinically trained with a minimum of a master's degree, have several roles. When the caller's problems appear to require only outpatient therapy, the usual routine is to offer that client a referral, based on the caller's problem, to several providers in the BHCA network. When the client finds a treatment resource which is not part of the network, access is controlled by the terms of the employer's benefit package, which may allow referral to a nonnetwork provider (often with an increased co-pay or other requirements). The client's benefits and options are explained and the referral is completed. In most cases, a set number of visits to the professional are immediately authorized, usually ten; however, the specific number depends on the nature of the benefit package. If, and when, a greater number of visits than originally

authorized is requested by the provider, the case is passed on to a CCM who, along with the provider, makes the decision as to the need for ongoing care.

When an initial call is an emergency, the role of the intake worker becomes more directly that of a clinician. The worker's job is to assess the nature of the emergency, and to decide how to handle the immediate care, either by arranging for an immediate counseling session or an outpatient or hospital-based psychiatric assessment. At times, the intake worker may "walk" (by telephone) the client, a family member or co-worker, step-by-step through the process of getting to the proper place for care. The worker may also talk with providers so that they are prepared to greet the client and perform the required assessment and follow-up to assure that the client is safely in treatment.

BHCA feels that children and adolescents need to be assessed and treated only by professionals who are specifically trained to work with these age groups. In addition, its CCM staff has children's specialists who manage all of the child and adolescent cases. Further, the consultation/supervisory staff of psychiatrists includes credentialed child psychiatrists for appropriate consultations. As a result, the staff and many providers have an understanding of how child and adolescent services need to be delivered in a systematic manner, including utilizing families and other community-based agencies.

Individuals who require more than basic short-term outpatient treatment have their care managed. At BHCA, this function is performed by the CCMs. Described below in greater detail, the BHCA care management process is guided by a high level of supervision and psychiatric consultation and review.

Systematic Approach:

Conceptually, the BHCA has a systematic approach to care. Its concept of care management is based on assessing an individual's risk and clinical needs from day to day, and being able to make shifts in that care in a systematic manner. BHCA has instituted a process of "Hospital Meetings" in which there is daily review of institutionalized individuals, and others in complicated care situations. These meetings are attended by assigned clinical teams and a consulting psychiatrist (child and adolescent specialists work with a child psychiatrist) for the purpose of understanding the complications in the course of clinical interventions, as well as allowing for discussions reflecting the group's collective thoughts about the best treatment options for each individual client. However, the team consultation process involved in these treatment decisions can be frustrating, when desired services are neither available nor allowed in benefit packages.

The degree to which care at BHCA is provided in a systematic manner is dependent on the specific benefit package defined in the contract with each employer. From BHCA's perspective, the key to offering services in the most systematic manner is to work under a contract offering an unlimited benefit that is closely managed. Within this type of arrangement, BHCA feels that it can use an unlimited array of intervention options as called for by the individual's needs. In fact, in some rare instances, it has been able to coordinate benefits with school system-funded services. In spite of this philosophy, in practice, the array of services available to most beneficiaries is limited to traditional outpatient, inpatient, residential treatment, and, more recently, partial hospitalization. This is due both to the limitations employers still want in their benefit packages and to the lack of many new service modalities, even partial hospitalization, in most communities nationwide. While in some cases the BHCA concept of alternative services has been expanded further to look at a broader range of community-based options, it still consists of mostly traditional and nontraditional medical model services with a strict "mental health" orientation and cannot yet be described as "wraparound" in nature. As a result, services are still shifted to public agencies when benefits run out. BHCA feels that it is within the role of the CCM to help clients and their families make these transitions to public care when required.

A weakness in its system approach was discovered in the BHCA guidelines for determining levels of service (described in more detail below), in which an "antisocial diagnosis" is said to indicate a "referral to

the police or juvenile authorities." The implication follows that "placement decisions regarding adolescents should be made after ruling out antisocial diagnosis or with respect to the evaluation in progress." The guidelines do not indicate a need for integration of services with justice-related agencies.

Service Array:

As an MCO, BHCA offers no direct services. Rather, it contracts with providers nationwide to create the full array of services. There are two types of providers: individual practitioners and facilities. For the most part, the individual practitioners offer standard outpatient services. The facilities range from single service entities such as an inpatient hospital to programs that offer a full range of services from outpatient counseling through hospitalization and residential treatment. From a theoretical point of view, any service can be used in a treatment plan ranging from traditional outpatient, inpatient, partial-hospitalization, and residential treatment to newer alternative services, such as in-home service, crisis residential, therapeutic group home, and therapeutic foster care. From a practical point of view, the limits on the actual types of service that an individual patient can access are determined by the benefit package developed by the employer. BHCA strongly believes that the broader the benefit package, the more appropriate the care received by the beneficiary. It encourages its client companies to accept an unlimited benefit in which BHCA may manage care to the fullest degree. When this happens, the full array of services, as well as any other resources that make sense in the development of a treatment plan, are available to the beneficiaries. Unfortunately, most employers, and their benefit managers, are not yet comfortable with the use of the full continuum of services; the preponderance of benefit packages are bound by the limitation of using only traditional services.

An important aspect of managed care as practiced by BHCA is the use of clinical guidelines for level of service decisions. This process is based on a functional assessment of each individual within three dimensions:

- Disturbance in one or more of the following: affect, behavior, thought processes and judgment;
- Risk of suicide and/or harm to others; and
- Adequacy of the support network.

Under each dimension, BHCA describes the criteria associated with each of four major service levels:

- Outpatient;
- Day treatment/partial hospitalization;
- Residential; and
- Acute inpatient.

Thus, a matrix of dimensions and services is described. Users of the guidelines are counseled not to use them to "advise specific therapeutic interventions," but rather to use them in understanding the full range of factors before making professionally driven clinical decisions. The guidelines are also seen as a philosophical document that reminds the care manager to encourage the least restrictive environment that is appropriate and to include an assessment of the family system and social network in decision making.

It is particularly important that BHCA has developed clinical guidelines that are specifically geared toward children and adolescents. The introduction to the guidelines has a section on the special nature of child and adolescent services, including the need for evaluation and participation of the family, the use of parent-focused community resources such as parental education and support groups, the complexity of child and adolescent diagnosis, and the need for assessment and treatment by child and adolescent specialists.

There is also a special guidelines section on "In-Home Intensive Services for Children and Adolescents." This section is of special interest because it describes a nontraditional service most often found in the public sector and most often performed by nonclinicians. This service is suggested to avoid out-of-home placement

or admission to a more intensive level of care, and encourages the use of crisis stabilization, in-home assessment, rapid response, and increased family readiness to further treatment. It is based on a 6 to 8-week model using a family systems approach. It allows an initial assessment and crisis intervention visit of 2 to 3 hours, ("or more if appropriate"), and ongoing 1 to 1.5-hour sessions. The premise behind intensive in-home services is that certain interventions involving both child and family may act to prevent more intensive services such as hospitalizations or may act as the next step beyond failed outpatient services before hospitalization or residential treatment. While these services appear related to the concepts of wraparound services as delivered in the public sector, BHCA's theory is based less on the principles of family strength which underlies wraparound and is more focused on family dysfunction that needs to be addressed before treatment can be successful.

There is also a set of child and adolescent chemical dependency care guidelines. They are similar in structure and use to the mental health care guidelines and define a matrix of dimensions and services. These substance abuse guidelines use a different set of dimensions and services. The dimensions are as follows:

- o Risk of withdrawal and/or toxicity;
- o Emotional or behavioral conditions and/or complications;
- o Ability to abstain; and
- o Recovery environment.

The service categories include:

- o Intensive structured outpatient;
- o Partial hospitalization/day treatment;
- o Residential; and
- o Acute inpatient.

The full potential of BHCA's complete array of care is not being utilized because most of the benefit packages it has negotiated with client companies do not include the full range of services and are limited to traditional services. While BHCA encourages the use of nontraditional services, the benefit managers of a preponderance of companies still view them as public sector social service programs.

Financial:

BHCA, like other MCOs, has a number of different financial arrangements, both typical among MCOs, with the companies with whom it contracts and with its providers. For the most part, the companies are self-insured, with the mental health portion of their health insurance carved-out, or handled separately by BHCA. There are three different types of financial arrangements. In the first and most prevalent, the employer assumes the risk for cost of the care for its employees and their eligible dependents. The role of the MCO in this scenario is to manage that care, for a fee, so that the needed services are offered in the most cost effective way for the client company. The MCO arranges for beneficiaries to receive the care they need, credentials a cadre of appropriate provider clinicians and facilities, and handles claims. In some cases, the MCO pays the claims directly; in others the claim is paid by an insurance company which handles the company's nonmental health insurance.

A second way BHCA works with employers is as an insurance company. Under these contracts, companies pay BHCA a capitated rate (a fixed amount per member per month), and BHCA accepts the responsibility for providing all of the necessary mental health and substance abuse care needs within the parameters of the contract. What really makes this type of arrangement different is that BHCA, rather than the employer, also accepts the risk for the cost of that care. In order to operate in this manner, BHCA becomes the insurance company, and as such must be certified by the insurance authority in each State in which it has such a contract.

The third type of employer contract involves shared risk. With this type of arrangement, the employer remains the insurer, but the fee that BHCA receives is based on performance. If the cost of care is above a certain level prescribed in the contract, BHCA must bear a portion of that cost, usually by reducing the management fee. In this way, the risk of the cost of care is shared by the managed care company and the insured employer. In several contracts that represent this type of arrangement, BHCA is rewarded for good performance; when cost savings reach a certain prescribed level, an incentive bonus is added to the management fee.

The more than 400 companies for whom BHCA manages care range from small employers of fewer than 100 employees to huge companies and large labor union trusts. Each company defines its own benefit package. While companies do this in consultation with BHCA, each company has the final decision making power as to what goes into its contract. At BHCA, CCMs offer care to beneficiaries as defined in the benefit package. When a client needs care that is not covered by his or her benefit package, or when benefits have been used up, BHCA offers several options. The CCM can help individuals find care available to them in their community outside of the benefit package. Further, CCMs can explore whether extra-contractual benefits exist with which they can create a special program to meet the needs of the beneficiary. At times, companies allow, or demand, care beyond the benefit package. When an individual has care approved "outside of the contract," the employer takes full risk for that care, and the cost is not included in the performance measures used in its evaluations of BHCA.

BHCA attempts to create contracts that do not have unreasonable benefit packages. It prefers employers to provide unlimited benefits and trust that they can be well-managed. Similarly, some companies have put into place extra-contractual benefits for those suffering from severe mental disorders. These allow for extra benefits for "outliers" who, without those benefits, would relapse and require further hospitalization. Under such contracts, the beneficiary will be able to continue treatment in order to manage a severe disorder and minimize relapse.

In managing care and subsequently the cost of that care, the structure of the benefit package is the most powerful tool that BHCA feels it has. When an employer insists on a care package that encourages the use of high cost services, it is difficult for the managed care company to control costs without denying necessary services. For example, an employer may insist on an extremely limited outpatient benefit that has a 50 percent beneficiary co-pay, while hospitalization has none. This creates an incentive for the patient to insist on hospitalization and leaves the CCM in the position of having to authorize continued use of hospitalization benefits because there are insufficient resources to support less intensive care. BHCA strongly believes that with the availability of a broad array of services and an unlimited benefit, it is in the best position to control costs, while at the same time being able to offer the most appropriate care for each individual.

Hospitalization:

Within the BHCA system of care, hospitalization plays an essential and well-defined role. The need for hospitalization is dictated by the clinical situation as determined by the CCM and his or her psychiatric supervisor, with aid from the guidelines for level of care decisions. When speaking of hospitalization, BHCA refers to "Acute Inpatient." The concept of "acute" implies a short-term need for a level of care "requiring 24-hour management and supervision." This need is measured across all three dimensions in the guidelines. In the area of disturbance of behavior, thought process, affect, or judgment, the criteria are inability to provide basic survival needs, *and* interference in age-appropriate functions, *and* inability to exhibit age appropriate behavioral control, *and* evidence that the client has operated at a higher level of functioning in the past and can benefit from the hospitalization. In the area of risk the criteria focus on suicidal behavior, *and* ability to control, *and* the existence of an adequate support network. In the area of support network, the criteria focus on the support network's being unreliable, *and/or* severely dysfunctional, *and/or* offering a threat to the client's safety, *and/or* overwhelmed by the client's symptoms, *and* that other available resources are not adequate to deal with the clinical situation. While these guidelines may appear to be rather limiting,

experience during the site visit demonstrated that admission to a hospital was rarely denied, and that the criteria were used primarily to determine the length of stay. Inherent in keeping this hospitalization short-term and acute are the definition of the specific symptoms that require hospitalization, treatment goals based on those symptoms, and an aftercare plan that is developed on admission.
While BHCA feels that inpatient hospitalization is an appropriate vehicle for an in-depth psychiatric evaluation of a child or adolescent, this is true only when the child has a clinical situation reflective of a hospital admission, and there is no other level of care that will allow an adequate evaluation. The involvement of the family in that evaluation must be immediate and is seen as crucial.

Residential Treatment:

In the care management observed during the site visit, residential care appears to be used more than one would expect. When available within the benefit package, residential care is suggested when the levels of dysfunction and risk are less than that for acute inpatient care and when there is a similar degree of disturbance in the support network. Only a small percentage of companies offer this service in their benefit package. In reality, residential treatment tends to be used when acute hospitalization is no longer necessary but the client's condition or the family situation is such that returning home would not be fruitful and may result in readmission. BHCA often "flexes" the client's inpatient benefit to apply it to residential care. Unlike the use of residential treatment by public sector agencies and special education, BHCA most often uses short-term residential care of 90 days or less.

Long-term Care:

BHCA recognizes that some children and adolescents who receive mental health care under its management become outliers, or hard-to-deal-with kids. While it acknowledges that many of these children and adolescents end up in publicly supported special education, child welfare, and/or mental health services, it understands that a great deal of money has already been expended on most of them before they are "cost shifted" into the public system. This fact has led to the recognition that it is less costly to provide long-term, less intensive alternative services than it is to provide high-cost services for a short time before the benefit runs out. However, the only longer term service available within the majority of benefit packages is residential treatment, which is very high cost and still offered on a relatively short-term basis. As long as long-term care can take place in families and the community, BHCA feels that such services are not incompatible with managed private sector mental health care. To the degree possible, they have cost-shared with other agencies on certain placements, especially with school systems. However, they have not been in the position of being included as active members of interagency service planning for children and adolescents with severe emotional disturbances, and do not have the capacity for participating in a wraparound plan with truly blended funding.

Family:

BHCA feels the family is a vital part of the treatment of every child and adolescent. In its guidelines for levels of care decisions, the concept of family participation underlies all interventions. It states that for children and adolescents, "All treatment plans should include an immediate and thorough evaluation of the family" and that family therapy or collateral parental visits should be included in the child's treatment plan. The concept of "Support Networks" used in the guidelines refers primarily to parents, although other significant individuals and family members are included. During an internal quality assurance review held during the site visit, cases in which warranted family intervention had not been instituted were studied. Care managers were notified that this modality should be explored for these particular clients.

While there is a family emphasis on the care of children and adolescents, BHCA's approach is not necessarily family friendly within the context of the national movement of parents with children and adolescents with severe emotional disturbances. Its approach is a traditional family systems approach which

many families see as blaming and which focuses on fixing the family, rather than on seeing the family as an intervention resource.

Cultural Competence:

There appears to be no specific emphasis on cultural competence within BHCA. There is value placed on culture as a determinant in matching patient with provider. Particular cultural emphasis is available within the provider profile as accessed by a CCM.

Public Sector Clients:

As an organization, BHCA has had little past experience working with public sector clients. Two public sector efforts were less than a year old at the time of the site visit. While in the early stages of public sector work, BHCA has been gaining an understanding that the needs of the population are different and that a greater emphasis on longer term care will be required, as will interagency processes. Upper level BHCA management has a great deal of experience in working with public sector populations and agencies from its days working in public community mental health. The staff has also had to play a role in coordinating the public takeover of care for an individual who has used all of his or her benefits, and on rare occasions, has experienced cost sharing of an individual treatment plan. As BHCA increases its experience with the public sector, it will be able to add more to the body of knowledge of the applicability of its service management approach to public sector systems of care.

Child Psychiatry/Special Child Mental Health Capacity:

One of the major assets of BHCA's care management is its special focus on child mental health as a specialty. It believes strongly that child psychiatrists must be available to CCMs to help them make difficult clinical decisions. Full-time child psychiatry staff is available. Their role is to lead the case reviews of hospitalized and residentially placed clients, which take place during daily "Hospital Meetings," and to consult with CCMs who are working with child and adolescent cases. Available for consultation is a psychiatrist who is knowledgeable in psychopharmacologic issues of children and adolescents.

In addition, BHCA designates as child and adolescent specialists CCMs with the appropriate training and experience. Each of these individuals is responsible for the children and adolescents within their team's case load. This structure is driven by the understanding that children, adolescents and their families have different service needs than do adults; that child and adolescent criteria for determining level of care decisions have to be specially developed; and that child and adolescent-oriented providers should be used. All of these aspects are so different from adult services that to perform care management functions without taking them into consideration is felt by BHCA to lead to poor decision making.

The special clinical focus on children and adolescents makes BHCA a unique managed care entity with great potential to provide the most appropriate necessary mental health services.

Behavioral Health Company B

Behavioral Health Company B (BHCB) is a large company that provides managed mental health care for a large number of private corporations. It does this through the development of contracts with individual corporations, most of whom are self-insured or who have carved out the mental health portion of their health insurance. BHCB organizes the provision of the mental health care for more than 14 million individuals, some 2.25 million, or 15 percent, of which are children and adolescents[2]. With the exception of a limited number of Employee Assistance Plans (EAPs) which they run, BHCB does not deliver mental health services directly; rather it facilitates delivery through a large network of individual providers and facilities across the country with whom it has contracts. Qualified providers and facilities that are not in its contracted network can provide additional services.

The BHCB principle of management of care centers on a dual concept of the customer. One customer is the company that contracts for mental health insurance, which BHCB refers to as the "client." The client company's employees or dependents who receive the mental health services make up a second category of customer, called "beneficiaries." The client develops a benefit package that details the services to be provided to the beneficiaries, including the type and duration of services to be made available and the cost to the beneficiary. These benefit packages range from being rather limited and traditional to ones which offer an unlimited and flexible array of services. BHCB and other managed care organizations (MCOs) bid on a contract to deliver the mental health program as defined in each benefit package. After a contract is won, the beneficiaries arrange through BHCB to receive the most appropriate mental health service available to them within the limits of the benefit package the employer has developed.

The nature and management of its network of providers is a central feature of the BHCB system. Not only must these providers be qualified to perform the care entrusted to them, but the system also must rely on their "compatibility with the network"; that is, each provider needs to accept the concepts of least restrictive environment and medical necessity as held by BHCB, including limiting use of hospitalization, residential treatment, and other high levels of care to only those individuals for whom a lower level of care is not appropriate or has proven ineffective. While on the surface this may sound like the use of providers who are willing to "restrict" care, in reality, it reflects a belief that using the most appropriate level of care leads to the best clinical outcome. The fact that this philosophical shift also leads to less expensive care has been the driving force behind the success of good managed care. BHCB believes that implementing this model requires that services for children and adolescents are available from qualified practitioners with special training, expertise, and experience with this population.

To assure that the level of care is appropriate, BHCB operates on a policy of monitoring the ongoing level of both Severity of Illness (SI) and Intensity of Service (IS). This SI/IS balance has become the basis for BHCB's clinical guidelines which are used throughout its system to determine the level of service that needs to be provided. It has developed criteria for determining the need of all levels of service, including inpatient hospitalization, partial hospitalization, residential treatment, alternative services, and outpatient services. In addition to criteria for adults, the practice standards include specific criteria for both child and adolescent mental health and substance abuse services.

The keystone of the BHCB system of care is the clinical case manager (CCM), who is the individual beneficiary's initial link with service provision and manages his or her care over time. This process is initiated by a call to an 800 number. If this call comes from a beneficiary, it leads to a referral, and may include an immediate emergency response when needed. In those situations when a beneficiary contacts a provider directly, the provider calls the 800 number to obtain authorization for treatment. The CCM is then

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[2] BHCB also acts as a traditional insurance company for the mental health needs of another 6 million individuals.

responsible to the individual for managing all further care. When care consists of short- or intermediate-term outpatient psychotherapy covered by the benefit package offered by the employer, the CCM's job rarely involves much beyond the initial referral. When longer term care or care at a higher intensity level is necessary, the CCM is responsible for determining, along with the provider, the appropriate level of care to be used. This determination is made by using a mixture of the BHCB clinical guidelines and information gleaned from the clinician provider. An important aspect of this task is the determination of risk of harm to self and others, which is used as one of the key criteria for more restrictive care. Because of the clinical nature of their job, all CCMs are licensed mental health clinicians and have clinical mental health degrees at a master's level or higher[3]. All disputes between providers, beneficiaries, and the CCM on the level of care approved are immediately referred to staff consultants who have degrees that are at least equivalent to the clinicians'. These "peer advisors" are all either board-certified psychiatrists or clinical psychologists. At BHCB, most disagreements are dealt with at this initial consultative level, often with the clinician and peer advisors negotiating a mutually acceptable course of treatment. Although rare at BHCB, two appeals can be handled in-house by different peer advisors; when necessary, a final appeal review is performed by neutral, non-BHCB-related, third party professionals.

BHCB is typical of most MCOs in that its role in the delivery of service becomes a multi-determined process. It struggles with a number of competing forces that must be balanced before the individual in need of mental health care can receive the most appropriate services. On one hand, the financial forces involved in managed care are driven by the desire of the client companies to minimize the cost of mental health, while on the other, they still want to offer responsible and effective service. At the same time, they must deliver a competent and appropriate mental health service that is effective and at a level of intensity that minimizes the personal risk to the individual beneficiary or others. A third perspective relates to the providers of care and the tension they feel between their concepts of care delivery and those represented by the MCOs level of care criteria. As a result, two levels of dialogue exist between BHCB staff and their providers. With some, the CCM works to facilitate more effective care by helping clinicians understand the principles that underlie the BHCB clinical protocols, and to teach those principles as the current standard of care. The CCM also engages in discussion with other clinicians who may have a unique perspective on an individual patient. Under these circumstances, the clinician and the CCM become colleagues who work together to find the best clinical solution to the existing problems. Unfortunately, the realities of restrictive construction of benefit plans may limit the degree to which the CCM can be flexible in developing a service plan for an individual.

BHCB prides itself in giving its clinical staff the freedom to make decisions based on their best clinical judgments, using the BHCB clinical protocols as basic guidelines. While the CCMs are bound to the structure of the benefit package that the beneficiary has, they are asked to make clinically sound decisions. CCMs are encouraged to discuss problematic clinical situations with their supervisors and peer advisors. In order to encourage CCMs to make the most valid clinical decisions and not to focus on the cost of services, cost issues are dealt with by higher level management. Mid-level managers are responsible for meeting certain contractual goals between BHCB and the client companies. When those goals are not met, a study of the issues is triggered and management solutions are found to improve the business outcomes.

Agency Description and Population:

BHCB is an MCO that provides comprehensive mental health services for the employees and families of a large number of companies, or clients, nationwide. Using a large provider pool of clinicians and facilities, BHCB arranges for and manages the care of the more than 14 million individuals, of which 15 percent are children and adolescents. Even though almost all are served with private sector resources, this population cuts

[3] Occasionally a registered nurse without a master's degree is hired as a CCM, but only when that individual has an exceptional amount of experience with mental health service.

across all classes and includes many individuals for which co-payments of any amount will limit the amount of care they can access. In general, all of the children and adolescents in a beneficiary's family are eligible for mental health services through BHCB contracts. Some exceptions may include dependents with autism or developmental disabilities.

BHCB is broken down into 5 operating divisions which together house 16 operating units. Each of these units has one or more accounts; each account represents one client company. The units have a variable structure, depending on the nature of the accounts served and benefit packages represented. Each unit has the capacity to handle referrals, clinical case management, customer service, and provider payment. The client companies relate to the unit through an account manager. Beneficiaries call in on an 800 number and, depending on the nature of their call and the structure of the unit, relate to an individual who is either a CCM who specializes in triage (Assessment and Referral Services), a regular CCM, or a customer service worker. Providers offer services across accounts and therefore relate to a regional provider representative at the division level. This structure permits the BHCB clinical staff to work with a limited number of client companies with an equally limited number of benefit packages, which allows them to assimilate some of the culture of the client companies they work with and to have an intimate knowledge of each beneficiary's benefits. This is especially true in those special units that work with single, large accounts.

Client companies work with BHCB to create a benefit package that meets the client's needs and desires. These packages range from very restrictive in the type and amount of services available and in the amount of beneficiary co-pay required, to those that offer an unlimited and flexible benefit with little or no co-pay. BHCB is an MCO that is known for its clinical focus and, as a result, tends to contract with client companies that wish a broader rather than restrictive benefit package.

Providers who wish to join the BHCB provider network must make application. To be chosen for the network, the provider must meet certain criteria. Individual clinicians must be a psychiatrist; licensed Ph.D.-level psychologist; master's-level social worker; or clinical nurse specialist. All must be locally licensed and, where applicable, must be board certified or board eligible. Facility and clinic providers must be accredited either by the Joint Commission on the Accreditation of Health Care Organizations (JCAHCO), the Commission on Accreditation of Rehabilitative Facilities (CARF), or the Council on Accreditation of Services for Families and Children (COA). BHCB chooses providers who not only meet the qualifications stipulated, but are also "compatible with the network." This means that they must agree with the treatment philosophies underlying the BHCB clinical guidelines. Each provider accepted into the network is continually rated on his or her special expertise as well as positive and negative network experience, a process called "profiling". Providers who practice in a manner that is incompatible with BHCB's service philosophy, incompetent, or that generates numerous beneficiary complaints, can be removed from the network. Most benefit packages allow beneficiaries some flexibility to use providers who are not in the network; however, these clinicians must meet the same criteria required in the network and are reimbursed differently from network clinicians (as defined in each individual benefit plan). BHCB is encouraging the formation of local provider group practices which can offer a wide range of care options to beneficiaries. These so called "clinical groups" include such organizations as private group practices and community mental health centers.

Beneficiaries access care by calling an 800 number. That call is answered by a clinician who has the initial responsibility to obtain the name, address, and account information of the caller[4], and to perform an immediate assessment of mental health risk. A CCM specializing in assessment and referral triages the call in one of three categories: emergency, urgent, and routine. When emergency calls are from individuals at high risk for harm to self or others, the CCM follows procedures that keep the individual on the phone while help is arranged. The degree of assistance ranges from help being summoned (while the caller is still on the

[4] In those circumstances where a caller is unable or unwilling to give his or her name, address, or account information, an assessment and appropriate referral is made, especially in an emergency, pending an determination of the beneficiary's eligibility.

line) by other members of the CCM's team, to transporting the caller to an emergency room, to less intensive emergencies where, after referral plans are made, the CCM calls back to monitor status and progress. A situation defined as an emergency by a caller is always treated as one. The next lower level of priority is "Urgent," those calls for which the risk assessment dictates a rapid, but nonemergency response. These callers are scheduled to see a provider within 24 to 48 hours, most often the same day. When indicated, the BHCB clinician makes the appointment for the caller and calls back with the information. Certain providers are contracted to provide emergency and urgent services. The lowest level of priority are "Routine" calls, which most often result in the caller being given a list of network providers in his or her area. When an individual goes to the hospital prior to calling the 800 number, the initial call may come from the hospital staff requesting approval for an admission. After the initial call, the course of treatment is handled by a CCM. In some units, this is the same person who took the call.

Systematic Approach:

The degree to which the BHCB services can be conceptualized as a system of care depends on the SI/IS of an individual's mental health needs and on the flexibility in the benefit package. When the benefit package is rich, those individuals who require a systematic approach to care for a severe illness can receive it. The vehicle for making this happen is clinical case management which takes a central position in overseeing the care. The CCM has the responsibility to follow the care and to make sure that the patient moves smoothly from one level of intensity to another at the appropriate moment. In addition, the CCM can advise the on-site providers about local treatment options that might be considered. As the patient moves from one level of care to another, the CCM remains constant, and the patient's needs are assessed and appropriate care is authorized within the context of the patient's history and treatment experience. When the benefit package is most flexible, the CCM may offer nontraditional treatments and other resources as necessary to aid in the patient's care.

While CCMs are in the position to encourage the providers of care to coordinate care with local agencies such as schools, juvenile justice, and child welfare, they do not perform such coordination themselves; they must rely on the local providers for that function. In rare instances, CCMs have arranged for joint funding of a treatment with schools.

The more severe the illness and the higher the intensity of service required, the more likely that the CCM will rely on a systematic approach. By the time children and adolescents have failed in the more traditional service options of outpatient and hospitalization, they have already expended a high degree of resources. While some of these youngsters eventually end up being served primarily with public dollars through school, justice, and/or welfare agencies, BHCB feels that it is to everyone's advantage to offer appropriate, systematically provided care at an earlier point, thus keeping the cost of care down, while offering the family a more comprehensive, coordinated service package. When it is allowed by the client company to offer an unlimited, flexible benefit package, BHCB has the capacity to do this. BHCB hopes that, ultimately, it will be able to work cooperatively with local public agencies to fund treatment plans that will allow shared funding. In this way, the systematic potential of managed care could be maximized.

Unfortunately, many of the client companies demand an extremely limited benefit package, which offers only traditional services. This creates a situation in which BHCB cannot offer anything beyond a better managed version of standard indemnity insurance. It finds that this limiting of service options leads to increased use of more intensive and expensive treatments. While management of care can reduce the cost of offering service in the traditional way, its potential to minimize cost while assuring a more appropriate intervention is dulled. For individuals covered by these limited packages, BHCB care cannot be considered systematic.

Service Array:

As an MCO, BHCB offers no direct services, with the exception of several EAPs that it staffs. Rather, it contracts with providers nationwide to create the full array of services. Its network of providers includes individual practitioners, group practices, and facilities. Individual practitioners and group practices are used mostly to provide outpatient services. The facilities it contracts with are inpatient hospitals, multiservice agencies, and, to some degree, residential treatment centers. As treatment plans are developed, the entire range of services from outpatient, inpatient, partial hospitalization, and residential treatment to newer alternative services, such as in-home service, crisis residential, therapeutic group home, and therapeutic foster care can be accessed, within the bounds of the client's benefit package. BHCB executives preach that a flexible benefit package can lead to the most appropriate care possible, and they encourage their client companies to accept an unlimited benefit which is closely managed by BHCB. This allows for the use of the full array of services, which, in turn, most often leads to lower costs and less intensive service provision. However, many employers and their benefit managers still do not understand this concept and balk at the use of the full continuum of services. They do this by limiting the benefit package to traditional outpatient and inpatient services.

In order to best control the utilization of services, BHCB uses clinical guidelines in determining the need for a particular level of service. For each service, BHCB has developed a set of criteria which dictate when a particular type of service should be used. These criteria are based on SI and IS. Many of the subfactors relate to risk of harm to self or others and the related need for a structured environment of one degree or another to reduce that risk. However, some of the subfactors relate to the unique qualities of a type of service and how they are best used to work on specific problems.

Because of its understanding of the special needs of children and adolescents, BHCB has developed its clinical guidelines so that they are specifically geared toward that population. The Child/Adolescent Psychiatric Treatment section of clinical guidelines has a preface on elements of treatment, and a section on provider qualification, that set out the special nature of child and adolescent services, including the need for treatment to be performed by clinicians with appropriate training and experience, and the need for inclusion of the family. Treatment for children and adolescents is expected to be offered in the context of a family approach. For substance abuse treatment, there is a separate set of adolescent/adult substance abuse guidelines.

BHCB has clinical guidelines for the following mental health services:

- Inpatient psychiatric treatment;
- Psychiatric partial hospital treatment;
- Alternative services (described below);
- Intensive structured outpatient (used mainly with adults and older adolescents);
- Residential treatment center; and
- Outpatient psychiatric.

The guidelines on alternative services are of particular interest because they describe a programmatic approach that comes close to the individualized service approaches so popular in the public sector. Within this category of services, BHCB defines both an in-home intensive treatment approach and a flexible, wide, but unspecified, range of services, the primary purpose of which is hospital diversion. The following are the characteristics of an alternative service program as defined by BHCB:

- 24-hour intake, often with a "crisis team" for in-home assessment and stabilization efforts;
- Diversion from inpatient hospitalization;

- o Ability to rapidly move a client to more or less intensive services either through the agency's own staff or through community linkages with like-minded facilities;
- o Ability to provide respite care, therapeutic foster home, home-based services, case management to mobilize community resources or obtain professional services;
- o A treatment duration of from several to 90 days; and
- o Frequent team conferences, at least weekly.

The premise underlying alternative services is that certain interventions with both child and family may act to prevent more intensive services such as hospitalizations or may act as a next step beyond failed outpatient services before hospitalization or residential treatment[5]. The full potential of BHCB's broad array of care is not being utilized because a great number of the benefit packages it has to work under do not include alternative services and are limited to traditional services. While BHCB encourages the use of alternative services, the benefit managers of a preponderance of companies still view them as public sector social service programs.

Although the term is not used regarding the array of services for children and adolescents, the staff of BHCB often refers to the use of "intensive, or supported, outpatient services"; these services approximate the psychosocial approaches used for those adults with chronic mental illness. BHCB also provides substance abuse services as part of its managed care packages. As with mental health services, there is an array of services that includes inpatient detoxification, ambulatory detoxification, intensive outpatient rehabilitation, and inpatient rehabilitation. Case managers have the same responsibility for approving placement in a particular service on similar criteria based on SI/IS factors.

Financial:

Most of BHCB's clients are self-insured companies who accept the risk of the cost of the health care needs of their employees and their eligible beneficiaries. For some of these companies, BHCB's role is to manage the mental health and substance abuse part of that care, for which it receives a fee. For this fee, it arranges for beneficiaries to receive the care they need, credentials a cadre of appropriate provider clinicians and facilities, and handles claims. For some client companies, BHCB pays the claims; for others, the claim is paid by an insurance company which handles the company's nonmental health insurance.

In some instances, BHCB accepts full risk for a population and, thus, operates as an insurance company. Under these contracts, it accepts a capitated rate (a fixed amount per member per month) for a population and must provide all of the necessary mental health and substance abuse care spelled out in the agreement. Under this type of arrangement, the client company has no risk beyond the cost of the contract, and BHCB becomes an insurance company that accepts full fiscal responsibility for the care under the contract. Its number of capitated contracts has been limited by the small number of States in which it has been certified as an indemnity organization.

At other times, BHCB shares the risk with the client company. Under this type of arrangement, the employer accepts the primary risk for health care costs. The employer pays the MCO a management fee to manage the care, with the proviso that, if the costs of care exceed a previously determined cap, the MCO will absorb all or some of the extra cost. On the other hand, if the costs are less than anticipated, the MCO will share in some of the surplus. This is currently the most prevalent form of MCO contract.

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[5] While BHCB relates the basis for its concepts of alternative services to the wraparound services in the public sector, its treatment theory is not based on the principles of family strength--an underlying principle of wraparound--but rather on the principle that most children and adolescents in need of mental health care live within the context of family dysfunction that needs to be addressed before treatment can be successful.

The companies for whom it manages care range from small employers to huge companies. Each company contracts for its own benefit package. BHCB attempts to create contracts that will not have unreasonable benefit packages. It prefers companies to provide unlimited benefits and trust that they can be well managed. Similarly, some companies have put into place extra contractual benefits for those suffering from severe mental disorders. These allow extra benefits for "outliers" who, without those benefits, would relapse and require further hospitalization. Under such contracts, the beneficiary is able to continue treatment in order to manage a severe disorder and minimize relapse. When an individual has exhausted his or her benefits, BHCB CCMs try to connect each one with community care that the family can access on its own. The CCM may also try to convince the employer to pay extra benefits for extended care or to create a special program.

Hospitalization:

Within the BHCB system of care, the role of hospitalization is vital but well delineated. The need for hospitalization is dictated by certain levels of SI/IS. When BHCB describes inpatient hospitalization, it refers to a short-term, acute service, the purpose of which is the "immediate diagnosis and treatment of a psychiatric condition which would be reasonably expected to jeopardize the beneficiary's or another's life, cause severe impairment in bodily functions, or cause serious dysfunction and/or deterioration." Inherent in restricting hospitalization to serving short-term and acute needs is the definition of specific symptoms that require hospitalization, treatment goals based on these symptoms, and an aftercare plan that is developed on admission. Symptoms that could call for hospitalization include suicidal attempts or high-level suicidal ideation, recent self-mutilation, threats to others, destructive endangering acts toward property, and others related to decreased level of functioning related to psychiatric symptoms.

BHCB feels that an in-depth psychiatric evaluation of a child or adolescent should occur only in an inpatient setting when the child has an SI/IS reflective of a hospital admission, and there is inadequate support at home to allow an appropriate evaluation. The involvement of the family in that evaluation is seen as crucial. BHCB does not define the length of stay necessary for such an in-depth evaluation; however, there are standards as to when certain evaluative tasks should be completed.

Residential Treatment:

It was observed during the site visit that residential care was a frequently discussed option. While such a placement could happen only on the rare occasion when this option is offered in the benefit package, residential treatment is provided at those times when the degree of post-hospitalization symptomatology does, or is projected to, not allow the child or adolescent to live at home. Residential treatment is seen as a limited placement, about 60 days on average.

Long-term Care:

Long-term care is not part of the contract BHCB makes with private sector employers. Individuals who need this level of care most likely will receive the necessary services through public sector-supported special education, child welfare, and/or mental health programs, as often happens when an individual's benefits run out. About 10 percent of the children and adolescents whose care is managed by BHCB are considered to be high users or "outliers," many of whom are at risk of being shifted to the public system. By the time this happens, BHCB has already expended a great deal of money on most of these youth, and it feels that, if it can serve this population with less costly alternative services, it will not only reduce spending, but also prevent some long-term placements.

Family:

BHCB feels that the treatment of every child and adolescent requires participation of the family. In its clinical guidelines, it states that "Since the identity of the child or adolescent is closely interwoven with that of the family, family member involvement in the assessment, treatment, and continued care of the patient is required." It has two exceptions to this policy: for situations "when family members are so dysfunctional their involvement would be clinically counterproductive" and/or "when specific legal restrictions [such as a protective court order] prohibit such involvement." In the clinical review of child and adolescent cases, CCMs urge, and sometimes insist, that family intervention be part of the treatment plan.

BHCB uses a traditional family systems approach which has not been seen as family friendly by the national movement of parents with children and adolescents with severe emotional disturbances. Many families see this approach as blaming them for the problems of their child and resent the focus on fixing the family, rather than on seeing the family as an intervention resource. As an example, during the site visit, families were often referred to as being "dysfunctional."

Cultural Competence:

At BHCB, cultural competence is equated with trying to make a culturally appropriate match between patient and provider. CCMs are given information on the cultural characteristics of the providers and patients as part of the referral process. As such, there appears to be no specific emphasis on cultural competence.

Public Sector Clients:

BHCB's primary experience has been in the private sector and only at the time of the site visit was it in the process of negotiating a large, statewide, public sector contract. There was a perception that working with the public sector would include a greater usage of nonhospital community-based service alternatives, but BHCB had not yet fully explored the relationship between its acute care experience and the longer-term care often expected in the public sector.

Child Psychiatry/Special Child Mental Health Capacity:

BHCB places high value in the belief that children and adolescents should be treated by providers who have specialty training and/or valid experience in working with these populations, especially with younger children. It also holds to the principle that the family is the unit of treatment for most child and adolescent mental health problems. As a result, it has developed policies favoring family therapy and, therefore, providers with that particular experience. The focus on the special needs of children and adolescents is reflected in the development and use of child and adolescent specific criteria in the BHCB clinical protocols, as discussed earlier.

CCMs at BHCB are generalists whose caseloads include both children and adults. BHCB feels that the CCM-skill is a general one and that no particular child and adolescent mental health expertise is necessary to perform the job well for this population. However, it does believe that the Peer Advisor process of psychiatric consultation on more difficult child and adolescent cases, especially those which require more intensive services such as hospitalization and residential treatment, should be performed by a child and adolescent psychiatrist. Each unit has this resource available to it, at least part-time, while larger units may have a child and adolescent psychiatrist on a full-time basis. BHCB has full-time and part-time child and adolescent psychiatrists acting as medical directors. Additional child and adolescent psychiatrists work as consultants and peer advisors in all units.

Appendix B

Sources and Qualifications of Data - Chapter 6

Children's Global Assessment Scale
(for Children 4 to 21 years of Age)

Rate the subject's most impaired level of general functioning for the **LAST 3 MONTHS** by selecting the lowest level which describes his/her functioning on a hypothetical continuum of health-illness. Use intermediary levels (e.g., 35, 58, 62).

Rate actual functioning regardless of treatment *or* prognosis. **The examples of behavior provided are only illustrative and are *not* required for a particular rating.**

100-91 *Superior functioning* in all areas (at home, at school, and with peers); involved in a wide range of activities and has many interest (e.g., has hobbies or participates in extracurricular activities or belongs to an organized group such as Scouts, etc.): likable, confident; "everyday" worries never get out of hand; doing well in school; no symptoms

90-81 *Good functioning in all areas;* secure in family, school, and with peers; there may be transient difficulties and "everyday" worries that occasionally get out of hand (e.g., mild anxiety associated with an important exam, occasionally "blowups" with siblings, parents, or peers)

80-71 *No more than slight impairment in functioning* at home, at school, or with peers; some disturbance of behavior or emotional distress may be present in response to life stresses (e.g., parental separations, death, birth of a sib), but these are brief and interference with functioning is transient; such children are only minimally disturbing to others and are not considered deviant by those who know them

70-61 *Some difficulty in a single area, but generally functioning pretty well* (e.g., sporadic or isolated antisocial acts, such as occasionally playing hooky or petty theft; consistent minor difficulties with school work; mood changes of brief duration; fears and anxieties which do not lead to gross avoidance behavior; self-doubts); has some meaningful interpersonal relationships; most people who do not know the child well would not consider him/her deviant but those who do know him/her well might express concern

60-51 *Variable functioning with sporadic difficulties or symptoms in several but not all social areas;* disturbance would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in other settings

50-41 *Moderate degree of interference in functioning in most social areas or severe impairment if functioning in one area,* such as might result from, for example, suicidal preoccupation's and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor or inappropriate social skills, frequent episodes of aggressive or other antisocial behavior with some preservation of meaningful social relationships

40-31 *Major impairment in functioning in several areas and unable to function in one of these areas,* i.e., disturbed at home, at school, with peers, or in society at large, e.g., persistent aggression without clear instigation; markedly withdrawn and isolated behavior due to either mood or thought disturbance, suicidal attempts with clear lethal intent; such children are likely to require special schooling and/or hospitalization or withdrawal from school (but this is not a sufficient criterion for inclusion in this category)

30-21 *Unable to function in almost all areas*, e.g., stays at home, in ward, or in bed all day without taking part in social activities *or* severe impairment in reality testing *or* serious impairment in communication (e.g., sometimes incoherent or inappropriate

20-11 *Needs considerable supervision* to prevent hurting others or self (e.g., frequently violent, repeated suicide attempts) *or* to maintain personal hygiene *or* gross impairment in all forms of communication, e.g., severe abnormalities in verbal and gestural communication, marked social aloofness, stupor, etc.

10-1 *Needs constant supervision* (24 hour care) due to severely aggressive or self-destructive behavior or gross impairment in reality testing, communication, cognition, affect, or personal hygiene.

Your rating of this child: _____

Not applicable; child is less than 4 years old_____

STUDY ID# |___|___|___|___|___|___|___|___|___|___|

INTERVIEWER ID# |___|___|

NON-CLINICIAN GLOBAL ASSESSMENT SCALE FOR CHILDREN (N-CGAS-C)

SCORE	DESCRIPTION
100	**DOING VERY WELL** in all areas; no problems at home, at school, or with friends; likeable,
|	confident, involved in activities and interests. Functioning is superior or above average.
91	
90	**DOING WELL** in all areas; secure at home, at school, and with friends. There may be occasional
|	minor upsets or everyday worries, but in general her/his functioning is good.
81	
80	**DOING ALL RIGHT** at home, at school, and with friends; some trouble or upset may occur after a
|	stressful situation, but those who know the child well would find the child's reaction completely
71	understandable. Any problem with functioning is temporary and mild.
70	**SOME MINOR PROBLEMS** in a single area, like at home or at school or with friends. People who do
|	not know the child very well would not notice the problems, but people who know her/him well could
61	be concerned. The child may experience brief periods of mild distress.
60	**SOME NOTICEABLE PROBLEMS** at home, at school, or with friends. In the situation where she/he
|	has problems, the problems would be noticeable to anyone, but in other situations the child could
51	seem fine. The child may experience mild distress more persistently.
50	**OBVIOUS PROBLEMS**; several observable problems that cause trouble in most situations - at home,
|	at school, and/or with friends; or one very serious problem. The child may experience a moderate
41	degree of distress.
40	**SERIOUS PROBLEMS**; very serious problems at home, at school, or with peers, and/or with society
|	at large. Although in general the child can function on her/his own, there are some situations in
31	which she/he is unable to function independently. The child may experience severe distress.
30	**SEVERE PROBLEMS**: the child is unable to function on her/his own in almost all situations.
|	
21	
20	**VERY SEVERELY IMPAIRED**; considerable supervision is required for safety or to maintain personal
|	hygiene.
11	
10	**EXTREMELY IMPAIRED**; constant supervision is required for the child's and others' protection and
|	safety, and to maintain personal hygiene.
1	

SCORE: |___ ___ ___|

Appendix C

Sources and Qualifications of Data--Chapter 7 Inventory Data

Sources of Data

The organizational data in chapter 7 were derived from a series of biennial inventories of specialty mental health organizations, and non-Federal general hospitals with mental health services in the United States, conducted by the Survey and Analysis Branch (SAB), Division of State and Community Systems Development (DSCSD), Center for Mental Health Services (CMHS), with the cooperation and assistance of the State mental health agencies, the National Association of State Mental Health Program Directors, the American Hospital Association and the National Association of Psychiatric Healthcare Systems. The data have been imputed for missing organizations as well as for missing items among organizations that reported.

Prior to 1981-82, three inventories were conducted, as follows:

- Inventory of Comprehensive Federally Funded Community Mental Health Centers (CMHCs), which was used to monitor CMHCs federally funded under the CMHC Act of 1963 and pertinent amendments

- Inventory of General Hospital Psychiatric Services, which was used for non-Federal and VA general hospitals identified as having separate psychiatric services

- Inventory of Mental Health Organizations, which was used for organizations that were not covered in the other two inventories. Organizations included psychiatric hospitals (State, county, and private), Veterans Administration neuropsychiatric hospitals and psychiatric outpatient clinics, psychiatric partial care organizations, and multiservice mental health organizations, not elsewhere classified.

The Inventory of CMHCs was discontinued in 1981, the definitions of organizations changed at that time and all organizations surveyed in the CMHC Inventory were then subsumed under the other two inventories. Definitions of organization types are contained in this appendix.

The aggregate organizational data reported in chapter 7 are derived from information on forms that were mailed to all organizations of the types shown for the years shown. The inventories are typically mailed in January of even-numbered years to obtain information on the previous year. Organizations had the option of reporting on either a calendar- or fiscal-year basis.

The 1986 Inventory of Mental Health Organizations and General Hospital Mental Health Services (IMHO/GHMHS) marked the beginning of a major evolution of the National Institute of Mental Health (NIMH) Inventory. For the 18 years prior to 1986, the biennial Inventory of Mental Health Organizations (IMHO) and the Inventory of General Hospital Mental Health Services (IGHMHS) functioned as companion, 100 percent enumeration surveys designed to collect information on specialty mental health organizations in the United States. The IGHMHS covered psychiatric services of general hospitals, while the IMHO covered other specialty mental health organizations, including State and county mental hospitals, private psychiatric hospitals, psychiatric outpatient clinics, etc. In those 18 years, the biennial inventories were carried out under separate contracts with separate forms, and in certain years, at a different time of the year.

The 1986 IMHO-GHMHS was designed to simplify data collection procedures, reduce response burden, and alleviate many of the issues that had occurred prior to 1986. First, a single contract was awarded to conduct the 1986 IMHO-GHMHS; prior to 1986, two contracts were required. Second, since similarities existed between the questions asked in the previously conducted separate inventories, it was feasible to develop a common core form with three versions--one for specialty mental health organizations, one for general hospitals with separate psychiatric services, and a brief screener form for general hospitals without separate psychiatric services. Third, since the survey was carried out with a common core form, comparable information was obtained from general hospitals at the same time as from other specialty mental health organizations. The data collection protocol instituted in 1986 was also applied in 1988, 1990, and 1992.

Type of Information Collected

For all years, the inventories include questions on types of services provided, (e.g., inpatient, outpatient, and partial care); number of inpatient beds; number of inpatient, outpatient, and partial care additions; and end of year inpatient census; expenditures; and staffing by type of discipline. Revenues by source were collected only in 1983, 1986, 1988, 1990, and 1992.

Staffing information is collected as of a sample week at the time the inventory is mailed, and types of services and beds are collected as of the beginning of the next year. Thus, in tables where numbers of organizations and beds are shown (tables 7.1 and 7.2), data are shown at a point in time, usually January of a particular year. For all other tables, the year refers to either the calendar year or a fiscal year. For all years, information is adjusted to include estimates for organizations that did not report. Some of the data have been published previously (see chapter 7 references for selected titles).

Types of Organizations

Types of organizations included in this report are defined as follows:

An *outpatient mental health clinic* is an organization that provides only ambulatory mental health services. The medical responsibility for all patients/clients and/or direction of the mental health program is generally assumed by a psychiatrist. Beginning in 1986, the definition was changed so that in order for an organization be classified as an outpatient clinic, it must only provide *outpatient* services.

A *psychiatric hospital* (public or private) is an organization that is primarily concerned with providing inpatient care to mentally ill persons.

A *residential treatment center for emotionally disturbed children* (RTC) is an organization that must meet all of the following criteria:

- It is an organization, not licensed as a psychiatric hospital, the primary purpose of which is the provision of individually planned programs of mental health treatment services in conjunction with residential care for its patients/clients.
- It has a clinical program within the organization that is directed by a psychiatrist, psychologist, social worker, or psychiatric nurse who has a master's and/or a doctorate degree.
- It serves children and youth primarily under the age of 18.
- The primary reason for the admission of 50 percent or more of the children and youth is mental illness that can be classified by DSM-II/ICDA-8 or DSM-III/ICD-9-CM codes, other than those codes for mental retardation, drug-related disorders, and alcoholism.

A *mental health partial care organization* is a freestanding organization offering only day or night partial care or partial hospitalization.

A *multiservice mental health organization* is an organization that provides services in two or more services that are under the organization's direct administrative control, and is not classified as a psychiatric hospital, general hospital or RTC. Prior to 1983, at least one of the program elements had to be either inpatient or residential treatment, but this was changed to any two services (e.g., outpatient and partial care) in 1983.

Community mental health centers (CMHCs) may qualify as multiservice mental health organizations. In order to determine this, they are classified according to specified additional criteria as follows:

- A *CMHC*, whether formerly federally funded or not, that meets the above criteria for a multiservice mental health organization, and is not part of a general or a psychiatric hospital, is classified as a multiservice mental health organization.

- A *CMHC*, whether formerly federally funded or not, that meets the above criteria for a multiservice mental health organization, and is under the administration of a general hospital, is classified as a general hospital with a separate psychiatric service.

- A *CMHC*, whether formerly federally funded or not, that meets the above criteria for a multiservice mental health organization, and is part of a psychiatric hospital, is classified as a psychiatric hospital.

A *general hospital with separate psychiatric service(s)* is a licensed hospital that has established organizationally separate psychiatric services with assigned staff for inpatient care, and/or outpatient care, and/or partial hospitalization, to provide diagnosis, evaluation, and/or treatment to persons admitted with known or suspected psychiatric diagnoses. If inpatient care is the separate psychiatric service, beds are set up and staffed specifically for psychiatric patients in a separate ward or unit. These beds may be located in a separate building, wing, ward, or floor, or they may be a specific group of beds physically separated from regular or surgical beds.

Description of Tables and Graphs

Tables 7.1 through 7.10 present national data. These tables are organized to reflect the four system foci described in the chapter 6 text. With the exception of table 7.10, which presents data for 1986, 1988, and 1990 only, each of these tables presents data for selected years over a 19 year period. Aggregate data in tables 7.1 through 7.10 are presented by type of organization for the United States as a whole (excluding Puerto Rico, the Virgin Islands, and other U.S. Territories and possessions).

Figures 7.1 through 7.9b present selected national trend data for specific mental health organizations and accompany material presented in the text. The inventory data update information published in previous editions of *Mental Health, United States*. Data for 1971, 1973, and 1977, presented in the 1983 edition, are not included in the current tables or figures. Data for 1988, presented in the 1992 and 1994 editions are also excluded.

Tables 7.11 through 7.11c present State tables for 1986, 1990, and 1992. These data include information for the Territories and possessions. Figures 7.14-7.18 present data by State for 1992.

Qualifications of the Data

Data for the four most recent years shown (1979-80, 1986, 1990, and 1992) are influenced by factors that affect the comparability of data among these years and earlier years. Since 1979-80 data are not

available for VA medical centers, psychiatric services of non-Federal general hospitals, and Federally funded CMHCs, data shown for 1979-80 are as of 1980-81 for CMHCs and as of 1977-78 for VA medical centers and non-Federal general hospitals psychiatric services. These data substitutions were made in tables 7.1 through 7.6 and 7.9a and 7.9b. The impact of these substitutions on the comparability of the data is not known. However, since these years were close in time, the effect is believed to be small.

A second major revision of the inventory program took place in 1981-82. As a result of the 1981 shift in the funding of the CMHC program from categorical to block grants, the inventory of CMHCs was discontinued. Organizations that previously had been classified as CMHCs were reclassified as multiservice mental health organizations, free-standing psychiatric outpatient clinics, or as separate psychiatric units of non-Federal general hospitals, depending upon the types of services they directly operated and controlled. the IMHO, first used in 1981-82, was designed to reflect these changes in classification.

A third revision took place in 1983-84 that changed the definition of multiservice mental health organizations and partial care services. Prior to that time, any organization (1) not classified either as a psychiatric hospital, general hospital with separate psychiatric services, or residential treatment center for emotionally disturbed children and (2) that offered either inpatient care or residential treatment care *and* outpatient *or* partial care was classified as a *multiservice mental health organization.* In 1983-84, this definition was broadened to include organizations that offered any two different services and were not classifiable as any of the organizations noted in (1) above. The provision of inpatient or residential treatment care was no longer a prerequisite. As a result, many organizations classified in 1981-82 and earlier was psychiatric outpatient clinics were classified in 1983-84 as multiservice mental health organizations.

For partial care services, the definition was broadened in 1983-84 to include rehabilitation, habitation, and education programs that had previously been excluded. This resulted in a sharp increase in the number and volume of partial care programs.

Another revision occurred in the definition for psychiatric outpatient clinics between 1983-84 and 1986. In 1983-84, an organization could be classified as a freestanding psychiatric outpatient clinic if partial care was provided as well as outpatient services. In 1986, 1990, and 1992, an organization had to provide outpatient services only to be so classified.

In summary, the net effect of the revisions has been

- to phase out CMHCs as a category in 1981-82, 1983-84, and 1986;
- to increase the number of multiservice mental health organizations in all 3 years;
- to increase the number of psychiatric outpatient clinics in 1981-82, but decrease the number in 1983-84, 1986, 1990, and 1992; and
- to increase the number of partial care services in 1983-84.

These changes should be noted when interyear comparisons for the affected organizations and service types are made.

The increase in the number of general hospitals with separate psychiatric services also was due to a more concerted effort to identify these organizations in 1980-81 and 1983-84 and 1986 than previously. In prior years, forms were sent only to those hospitals previously identified as having a separate psychiatric service. In 1980-81, 1983-84, 1986, 1990, and 1992, a screener form was sent to general hospitals not previously identified as providing a separate psychiatric service to determine if they had such a service.

The large increase in the number of RTCs between 1983 and 1992 was attributed to the identification of RTCs from lists obtained on RTCs in 1986 which were previously unknown.

Since 1981-82 data were not available for VA medical centers and non-Federal general hospitals, 1980-81 data were used where possible. For VA medical centers, 1980-81 data were available only on bed and patient movement variables for inpatient services. The effect on the comparability of the data resulting from the substitution of data for the previous year is unknown, but is believed to be small. However, headnote and footnotes indicate (1) tables that have excluded VA data for all years or (2) tables where data substitutions have been made.

Appendix Table 9.1. Percent of counties with any mental health services by metropolitan status, urbanization and trade area type of counties: 1983

Percent of counties (number of counties)						
Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	82.3 (3,137)	87.4 (365)	87.2 (554)	83.0 (512)	83.3 (933)	74.8 (773)
Metropolitan Areas	95.1 (735)	94.3 (244)	95.5 (291)	97.0 (200)	-	-
Urban population 250,000 or more	100.0 (142)	100.0 (90)	100.0 (52)	-	-	-
Urban population 50,000 to 250,000	99.0 (300)	96.9 (64)	100.0 (97)	99.3 (139)	-	-
Urban population 20,000 to 50,000	94.8 (115)	90.6 (32)	96.3 (54)	96.6 (29)	-	-
Urban population under 20,000	84.8 (178)	84.5 (58)	87.5 (88)	78.1 (32)	-	-
Nonmetropolitan Areas	78.4 (2,402)	73.6 (121)	77.9 (263)	75.0 (312)	83.3 (933)	74.8 (773)
Urban population 20,000 or more	97.9 (292)	100.0 (8)	86.4 (22)	95.5 (22)	99.2 (240)	-
Urban population 2,500 to 20,000	87.1 (1,325)	80.0 (70)	84.5 (165)	83.7 (184)	89.9 (437)	87.6 (469)
0Urban population under 2,500	56.4 (785)	58.1 (43)	60.5 (76)	55.7 (106)	57.0 (256)	54.9 (304)

Appendix Table 9.2. Percent of counties with any mental health services by metropolitan status, urbanization and trade area type of counties: 1990

Percent of counties (number of counties)						
Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	83.3 (3,137)	89.9 (365)	90.3 (554)	81.8 (512)	84.1 (933)	75.0 (773)
Metropolitan Areas	95.7 (735)	95.9 (244)	95.5 (291)	97.0 (200)	-	-
Urban population 250,000 or more	100.0 (142)	100.0 (90)	100.0 (52)	-	-	-
Urban population 50,000 to 250,000	99.0 (300)	98.4 (64)	100.0 (97)	99.3 (139)	-	-
Urban population 20,000 to 50,000	95.7 (115)	93.8 (32)	98.2 (54)	93.1 (29)	-	-
Urban population under 20,000	85.9 (178)	87.9 (58)	86.4 (88)	81.3 (32)	-	-
Nonmetropolitan Areas	79.5 (2,402)	77.7 (121)	84.4 (263)	73.1 (312)	84.1 (933)	75.0 (773)
Urban populations 20,000 or more	97.6 (292)	100.0 (8)	100.0 (22)	90.9 (22)	97.9 (240)	-
Urban population 2,500 to 20,000	89.4 (1,325)	84.3 (70)	90.3 (165)	82.6 (184)	92.0 (437)	90.0 (469)
Urban population under 2,500	56.1 (785)	62.8 (43)	67.1 (76)	52.8 (106)	57.8 (256)	52.0 (304)

Appendix Table 9.3. Percent of counties with any overnight mental health services by metropolitan status, urbanization and trade area type of counties: 1983

Percent of counties (number of counties)						
Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	25.0 (3,137)	47.7 (365)	32.1 (554)	30.9 (512)	19.5 (933)	12.4 (773)
Metropolitan Areas	59.1 (735)	66.0 (244)	50.9 (291)	64.0 (200)	-	-
Urban population 250,000 or more	98.6 (142)	98.9 (90)	98.1 (52)	-	-	-
Urban population 50,000 to 250,000	76.6 (300)	71.9 (64)	74.2 (97)	80.6 (139)	-	-
Urban population 20,000 to 50,000	38.3 (115)	37.5 (32)	33.3 (54)	48.3 (29)	-	-
Urban population under 20,000	12.9 (178)	24.1 (58)	8.0 (88)	6.3 (32)	-	-
Nonmetropolitan Areas	14.4 (2,402)	10.7 (121)	11.4 (263)	9.6 (312)	19.5 (933)	12.4 (773)
Urban populations 20,000 or more	50.0 (292)	37.5 (8)	22.7 (22)	22.7 (22)	55.4 (240)	-
Urban population 2,500 to 20,000	14.0 (1,325)	12.9 (70)	12.1 (165)	12.0 (184)	10.8 (437)	18.1 (469)
Urban population under 2,500	1.9 (785)	2.3 (43)	4.0 (76)	2.8 (106)	0.8 (256)	2.0 (304)

Appendix Table 9.4. Percent of counties with any overnight mental health services by metropolitan status, urbanization and trade area type of counties: 1990

Types of counties	Percent of counties (number of counties)					
	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	35.3 (3,137)	58.1 (365)	47.5 (554)	38.3 (512)	29.3 (933)	21.2 (773)
Metropolitan Areas	75.4 (735)	78.7 (244)	70.5 (291)	78.5 (200)	-	-
Urban population 250,000 or more	100.0 (142)	100.0 (90)	100.0 (52)	-	-	-
Urban population 50,000 to 250,000	97.3 (300)	93.8 (64)	97.9 (97)	98.6 (139)	-	-
Urban population 20,000 to 50,000	66.1 (115)	65.6 (32)	70.4 (54)	58.5 (29)	-	-
Urban population under 20,000	24.7 (178)	36.2 (58)	22.7 (88)	9.4 (32)	-	-
Nonmetropolitan Areas	23.1 (2,402)	16.5 (121)	22.1 (263)	12.5 (312)	29.3 (933)	21.2 (773)
Urban populations 20,000 or more	74.3 (292)	62.5 (8)	63.6 (22)	45.5 (22)	78.3 (240)	-
Urban population 2,500 to 20,000	23.3 (1,325)	20.0 (70)	24.2 (165)	13.0 (184)	18.1 (437)	32.4 (469)
Urban population under 2,500	3.6 (785)	2.3 (43)	5.3 (76)	4.7 (106)	2.3 (256)	3.9 (304)

Appendix Table 9.5. Percent of counties with any inpatient mental health services by metropolitan status, urbanization and trade area type of counties: 1983

Percent of counties (number of counties)						
Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	15.0 (3,137)	35.1 (365)	22.6 (554)	18.0 (512)	8.9 (933)	5.7 (773)
Metropolitan Areas	41.9 (735)	49.2 (244)	37.1 (291)	39.0 (200)	-	-
Urban population 250,000 or more	88.7 (142)	90.0 (90)	86.5 (52)	-	-	-
Urban population 50,000 to 250,000	48.7 (300)	40.6 (64)	51.6 (97)	50.4 (139)	-	-
Urban population 20,000 to 50,000	21.7 (115)	25.0 (32)	18.5 (54)	24.1 (29)	-	-
Urban population under 20,000	6.2 (178)	12.1 (58)	3.4 (88)	3.1 (32)	-	-
Nonmetropolitan Areas	6.8 (2,402)	2.5 (121)	6.5 (263)	4.4 (312)	8.9 (933)	5.7 (773)
Urban populations 20,000 or more	21.9 (292)	25.0 (8)	13.6 (22)	18.1 (22)	22.9 (240)	-
Urban population 2,500 to 20,000	7.3 (1,325)	5.7 (70)	8.5 (165)	5.4 (184)	6.2 (437)	8.7 (469)
Urban population under 2,500	0.4 (785)	0.0 (43)	4.0 (76)	0.0 (106)	0.4 (256)	0.7 (304)

Appendix Table 9.6. Percent of counties with any inpatient mental health services by metropolitan status, urbanization and trade area type of counties: 1990

Percent of counties (number of counties)						
Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	29.2 (3,137)	52.6 (365)	41.7 (554)	43.0 (512)	22.9 (933)	13.5 (773)
Metropolitan Areas	70.3 (735)	73.3 (244)	63.6 (291)	77.0 (200)	-	-
Urban population 250,000 or more	100.0 (142)	100.0 (90)	100.0 (52)	-	-	-
Urban population 50,000 to 250,000	94.7 (300)	89.0 (64)	92.8 (97)	98.6 (139)	-	-
Urban population 20,000 to 50,000	51.3 (115)	50.0 (32)	50.0 (54)	55.2 (29)	-	-
Urban population under 20,000	18.0 (178)	25.9 (58)	18.2 (88)	3.1 (32)	-	-
Nonmetropolitan Areas	16.6 (2,402)	5.7 (121)	17.5 (263)	6.4 (312)	22.9 (933)	13.5 (773)
Urban populations 20,000 or more	64.4 (292)	62.5 (8)	59.1 (22)	36.4 (22)	67.5 (240)	-
Urban population 2,500 to 20,000	15.3 (1,325)	12.9 (70)	19.4 (165)	6.0 (184)	11.7 (437)	21.1 (469)
Urban population under 2,500	1.0 (785)	0.0 (43)	1.3 (76)	0.9 (106)	0.4 (256)	1.6 (304)

Appendix Table 9.7. Average number of specialty mental health organizations per county by metropolitan status, urbanization and trade area type of counties: 1983/1990

Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	3.5/4.6	11.8/15.7	4.5/6.0	2.7/3.5	1.9/2.4	1.3/1.6
Metropolitan Areas	10.0/13.3	17.1/22.8	7.5/9.9	4.9/6.6	-	-
Urban population 250,000 or more	32.2/42.7	38.6/51.1	21.3/28.1	-	-	-
Urban population 50,000 to 250,000	7.3/9.5	8.2/10.5	8.0/10.6	6.3/8.4	-	-
Urban population 20,000 to 50,000	2.9/4.4	2.5/4.5	2.9/4.4	2.6/4.2	-	-
Urban population under 20,000	1.4/1.9	1.6/2.5	1.5/1.7	0.9/1.3	-	-
Nonmetropolitan Areas	1.5/1.9	1.1/1.5	1.3/1.7	1.2/1.5	1.9/2.4	1.3/1.6
Urban populations 20,000 or more	3.7/4.9	3.1/3.6	2.5/3.6	2.4/3.6	3.9/5.1	-
Urban population 2,500 to 20,000	1.5/1.9	1.2/1.6	1.4/1.9	1.5/1.8	1.5/1.8	1.6/2.1
Urban population under 2,500	0.7/0.8	0.7/0.7	0.8/0.9	0.6/0.7	0.7/0.8	0.7/0.8

Appendix Table 9.8. Average number of overnight specialty mental health organizations per county by metropolitan status, urbanization and trade area type of counties: 1983/1990

Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	0.6/1.3	2.1/4.6	0.8/1.8	0.5/1.1	0.2/0.5	0.1/0.3
Metropolitan Areas	1.8/ 4.2	3.0/6.8	1.4/3.2	1.1/2.4	-	-
Urban population 250,000 or more	5.8/13.2	6.7/15.6	4.3/9.2	-	-	-
Urban population 50,000 to 250,000	1.5/3.3	1.6/3.2	1.6/3.7	1.4/3.2	-	-
Urban population 20,000 to 50,000	0.5/1.2	0.6/1.2	0.4/1.1	0.7/1.3	-	-
Urban population under 20,000	0.2/0.3	0.3/0.5	0.1/0.3	0.1/0.1	-	-
Nonmetropolitan Areas	0.2/0.4	0.1/0.2	0.1/0.3	0.1/0.2	0.2/0.5	0.1/0.3
Urban populations 20,000 or more	0.6/1.4	0.6/1.3	0.3/0.9	0.4/0.9	0.6/1.5	-
Urban population 2,500 to 20,000	0.2/0.3	0.1/0.2	0.2/0.3	0.1/0.2	0.1/0.2	0.2/0.4
Urban population under 2,500	0.0/0.0	0.0/0.0	0.0/0.1	0.0/0.1	0.0/0.0	0.0/0.0

Appendix Table 9.9. Average number of inpatient specialty mental health organizations per county by metropolitan status, urbanization and trade area type of counties: 1983/1990

Types of counties	All counties	Metropolitan Trade Areas (Trade Areas [TAs] with a metropolitan community [MC] by size of the largest MC)			Nonmetropolitan Trade Areas (Trade areas [TAs] without a metropolitan community [MC])	
Metropolitan status and urbanization level of counties		Major Metropolitan TAs (with an MC of 1 million or more)	Medium Metropolitan TAs (with an MC of 250,000 to 1 million)	Small Metropolitan TAs (with an MC of less than 250,000)	More urbanized nonmetropolitan TAs (with a county with an urban population of 20,000 or more)	Less urbanized nonmetropolitan TAs (without a county with an urban population of 20,000 or more)
Total	0.3/0.8	1.0/3.1	0.4/1.2	0.2/0.7	0.1/0.3	0.1/0.2
Metropolitan Areas	0.9/2.8	1.4/4.5	0.7/2.4	0.6/1.7	-	-
Urban population 250,000 or more	2.7/8.8	3.1/10.4	2.1/6.1	-	-	-
Urban population 50,000 to 250,000	0.7/2.2	0.6/2.0	0.9/2.6	0.7/2.1	-	-
Urban population 20,000 to 50,000	0.3/0.7	0.3/0.8	0.2/0.7	0.3/0.8	-	-
Urban population under 20,000	0.1/0.2	0.1/0.3	0.1/0.2	0.0/0.0	-	-
Nonmetropolitan Areas	0.1/0.2	0.1/0.1	0.1/0.2	0.1/0.1	0.1/0.3	0.1/0.2
Urban populations 20,000 or more	0.3/0.9	0.1/0.1	0.1/0.2	0.3/0.9	0.3/0.9	-
Urban population 2,500 to 20,000	0.1/0.2	0.0/0.0	0.0/0.0	0.1/0.1	0.1/0.1	0.1/0.3
Urban population under 2,500	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0

Appendix E

Sources and Qualifications of Data - Chapter 10

Psychiatry

1996-97 American Medical Association Physician Characteristics and Distribution in the U.S.

Scope of Data.--Data are derived from the American Medical Association's (AMA) Masterfile which contains current and historical data on all physicians practicing in the United States. Psychiatrists in the Masterfile include physicians who self-designated their practice specialty as psychiatry. This designation is determined by the largest number of professional hours reported by the physician on the AMA Physicians Professional Activities (PPA) questionnaire which is sent to approximately one-third of all physicians each year. Data presented in the Physician Characteristics and Distribution in the U.S. are based on the self-designated practice specialty coding contained in the AMA Physician Masterfile. Data on medical residents and inactive psychiatrists have been excluded to accurately reflect clinically trained and clinically active psychiatrists.

Limitations.--Because the AMA Masterfile includes physicians who are self-designated or self-identified as a psychiatrists, the data may include some physicians with no specialty psychiatric training.

1996 American Psychiatric Association Membership Data

Scope of Data.--The 1996 American Psychiatric Association (APA) Membership estimates were taken from the July 1996 APA membership database. At that time, the total APA membership was 40,866 which included 28,970 active psychiatrists practicing in the United States. The remaining 11,896 APA members included: 5,438 psychiatric residents, 3,105 medical students, 2,035 psychiatrists not practicing in the United States, and 1,318 inactive psychiatrists.

Limitations.--The APA membership data are limited in that not all of the nation's psychiatrists are members of the APA. The APA membership data, does, however, include a significant majority of the physicians in the American Medical Association Masterfile. Unlike the AMA Masterfile data, all psychiatrists in the APA membership are board-certified or board-eligible and have some specialty psychiatric training.

1988-89 American Psychiatric Association, Professional Activities Survey (PAS)

Scope of Survey.--The 1988-89 American Psychiatric Association (APA) Professional Activity Survey (PAS) gathered data on both APA members and non-members who had identified themselves in the American Medical Association Masterfile as primarily specializing in psychiatry. APA Members and non-members were combined and cross-checked against the APA membership file in order to remove duplicate records resulting in a residual list of 10,091 self-designated psychiatrists, and 34,164 APA members.

Response Rate.--Of the 34,164 APA members included in the study, 23,126 or 67.7 percent responded to the survey. The sample of 10,091 self-designated psychiatrists yielded a response rate of 28.9 percent or 2,922 completed surveys. Of the 2,922 completed surveys, 341 respondents were found not to be psychiatrists and 125 psychiatrists were already members of the APA. The remaining total of 25,582 yielded 19,498 "active" psychiatrists, or psychiatrists who are not residents or fellows, not retired, and are primarily active in psychiatry, of which 17,930 were APA members and 1,568 were non-members.

Data Limitations.--In order to assess potential sources of survey non-response bias, an analysis was conducted in which demographic characteristics of respondents were compared with nonrespondents. This analysis revealed no major differences between the groups. Other possible limitations may include self-reporting error of psychiatrists with respect to the recollection and estimation of weekly and monthly activities. (Dorwart et al. 1992).

The 1994 APA Membership Directory Survey

Scope of Survey.--The APA Membership directory was a full membership survey of 38,242 members. The primary purpose of the survey was to compile an updated directory of APA members, with a secondary purpose to gather data on psychiatrists primary and secondary practice settings and professional activities.

Response Rate.--Of the 38,242 members included in the study, 27,843 (72.8 percent) completed the survey. Of those who completed the directory, 20,579 provided data on their primary practice setting, while 14,773 psychiatrists provided data on their secondary employment setting.

Data Limitations.--Because this survey did not include responses from non-members of the APA, the setting data obtained from this population are not directly comparable with the 1982 APA PAS and the 1988-89 APA PAS setting estimates. Consequently, inferences and trends in work setting data cannot be directly drawn between these populations. Although this survey obtained a good response rate and included a very large number of respondents, the findings may be subject to some response bias.

Psychology

The American Psychological Association Member Survey

Sources and Qualifications of the Data.--Who is to be counted as a mental health services provider in psychology?

Not all psychologists are trained for health service provider roles, and not all of those with the necessary training are actively engaged in providing these services. In order to determine the actual number of psychologists who are qualified to function as health service providers and the number who actually deliver relevant services, it was necessary to consider the type and amount of training and the acquisition of the appropriate credentials for delivering those service. This resulted in examining several variables:

- Licensure as a psychologist - In all 50 States and the District of Columbia, licensure as a psychologist by a State board of psychological examiners is required for the independent practice of psychology. As is the case with most professions, these licensing statutes are designed in part to protect the public by ensuring that minimum training and competency requirements have been met by practitioners.

- Doctoral degree in psychology - A significant amount of advanced and highly specialized training is required in order to independently provide the full spectrum of mental health services. In psychology, the doctoral degree meets this requirement, and this definition is incorporated into State licensing laws and criteria used by third-party payers to recognize psychologists as eligible for reimbursement for their services.

- Training in mental health services - Only some of the basic subfields in psychology deal directly with the provision of health and mental health services; these are clinical, counseling, and school psychology. Although these three fields constitute those for which graduate training programs are

accredited, a host of other postgraduate specializations exist in which psychologists can earn additional credentials (e.g., forensic psychology, clinical neuropsychology, behavior therapy, family psychology, and clinical hypnosis). Both field of degree and current major field were considered in this analysis.

Reported counts or estimates of mental health service providers in psychology often vary, and have resulted from the differential application of these criteria by the individual "counters." For example, simple counts of licensed psychologists, frequently reported at the State level, typically fail to take into account the fact that some individuals may be licensed in more than one State -- a situation that is more characteristic in large metropolitan areas such as New York City and Washington, D.C. In addition, early versions of State statutes governing licensure did not specify the doctoral degree as a major criterion, with the result that individuals with less than a doctoral degree may have been "grandfathered" in when new statutes were enacted.

Another problem with relying on counts of licensed psychologists is that, although the primary aim of licensure is to identify those individuals who are competent in the areas of clinical, counseling, and school psychology, a few States (e.g., New York) allow and encourage individuals in other subfields who provide other types of services to the public (e.g., organizational consulting) to become licensed.

The APA Member Survey.--The majority of data on psychologists were derived from the 1993 Member Survey with updates for 1994 and 1995. This survey is conducted every four years, with interim updates in intervening years when some piece of data changes in a record (such as the mailing address), or when a new member joins the Association. It is intended to be a census of all individuals who belong to the APA. The purpose of the survey is twofold: (1) to compile individual listings for publication in the Directory of the American Psychological Association and (2) to gather data on the demographics, employment and professional activities for describing and monitoring changes in the characteristics of Association members.

In Section I of the questionnaire, all members are asked to provide new or update existing basic information, including their current mailing, e-mail and fax addresses, date of birth, field and year of highest degree, major field and specialty areas, position title, employer and licensure status. The majority of this information is published in their Directory listing. Section II requests more detailed information on: (1) the nature of the person's employment, such as his or her primary and secondary employment settings, and a ranking of the three top work activities that the person performed for each setting; (2) the individual's involvement as a psychologist in specific activities during the past three years; (3) additional demographic information such as race, ethnicity, and receipt of professional degrees in areas other than psychology.

In September 1992, the APA member survey was sent to all members of the Association. Only one mailing of the survey was conducted. Of the 75,000 members who received the survey, 52,720 (70.3 percent) had responded by late May 1993, and provided some usable data. In addition, 70 percent of the 6,181 individuals who joined APA in 1994 responded, along with 63 percent of the 5,110 newly elected members in 1995.

Procedures for identifying health service providers in psychology.--As previously mentioned, individuals who are trained, or employed, in psychology, work in a wide range of subfields and career roles. Thus, the criteria for inclusion as an active health service provider in psychology were as follows: (1) the person was currently a U.S. resident; (2) the individual had earned a doctoral degree; (3) the member indicated that he or she was licensed by one or more States for the independent practice of psychology; (4) the person reported being employed in psychology; and (5) involvement in the provision of health and mental health services was indicated.

Those who are clinically trained to provide health and mental health services--a slightly larger group--included all of the above, as well as those who (1) were licensed and trained in a health service provider subfield, but who reported no current involvement in direct services, or (2) were not licensed but stated that they had received their doctorate in a practice-related subfield.

Given these criteria and the information available on members, attempts were made to derive estimates of the population of both clinically active and clinically trained personnel in psychology, rather than to simply report figures pertaining only to the APA membership. First, estimates were made of the number in the APA membership who were clinically trained, and what percentage of this group was clinically active. This percentage (76 percent) was then used to adjust the numbers of licensed psychologists reported by each State licensing board. Unduplicated counts of licensed psychologists (i.e., the number of doctoral-level psychologists who were licensed and residing in the respective State) were located for almost 80 percent of the States. For the remaining group of States, duplicated counts were used. Consequently, these numbers represent estimates of the total numbers of clinically trained and clinically active psychologists overall, in each of the regions, and in each of the States. The percentages reported in the table were based on the responses to the APA membership survey.

Qualifications of the data.--As previously mentioned, the information reported in the tables in Chapter 10 was based on analyses of the APA membership coupled with State by State data on the population of licensed psychologists, including those who did not belong to the APA. This strategy assumes, of course, that those who are licensed, but do not belong to the APA, are similar to licensed psychologists who are APA members. Previous research on both APA and non-APA members indicated that the APA membership has been quite representative of doctoral-level providers in psychology with respect to demographic characteristics, education, and employment (Howard et al. 1986; Stapp, Tucker, and VandenBos 1985). In addition, the growth in the membership of APA who report being active direct service providers appears to parallel the growth in degree production in the relevant fields. Although we realize that better data are needed, no such information is available currently.

Because not all members responded to the APA membership survey, the extent to which the results are affected by nonresponse bias is unclear. Earlier comparisons of basic biographical information for nonrespondents with the data for respondents did not indicate marked differences with respect to highest degree, sex and age. But conclusions could not be developed for information on employment. Thus, for example, we cannot be sure whether psychologists in certain types of employment settings, for example, were less likely to respond.

Subdoctoral degree holders in psychology also work in the general medical and mental health specialty sectors. These individuals were not included in our analysis, because the data are based on the APA membership, and it is the case that this membership is not representative of those with less than a doctoral degree. Second, because the current licensing laws in most States require a doctorate in order to sit for licensure, this group is an increasingly small minority of psychologists qualified for the independent practice of psychology.

For additional information on the data presented in Chapter 10, and on the characteristics of psychologists, please contact the Research Office, American Psychological Association, 750 First Street, NE, Washington, D.C., 20002, or call (202) 336-5980 or e-mail at jfp.apa@email.apa.org.

Social Work

Data Collection for the National Association of Social Workers.--The data for NASW were collected from both applications for new membership and from annual membership renewal forms. As the data are collected, they are entered into the membership data base on a continuous basis. Data exist for the large

majority of the NASW membership and all tables had less than 20 percent missing data, Tables are based upon current membership information of April 30, 1996.

The data collection forms ask for the highest degree awarded, either in social work or in another field, sex, and date of birth. Other questions request information about:

- *ethnic* origin;
- *auspices* of both primary and/or secondary jobs (auspices include such things as public, private, sectarian, etc.)
- *function* on the job (primary and/or secondary), such as direct service, supervision, research;
- *setting* of primary and/or secondary jobs, such as social service agency, private practice, hospital, outpatient facility;
- *practice area* of primary and/or secondary jobs, such as children and youth, family services, mental health, school social work, alcohol/drug abuse, services to the aged; and
- *total years* of social work experience since first social work degree.

The data was drawn from the 152,067 total NASW members, selecting the clinically trained as those with masters or doctoral degrees that were not retired. Clinically active social workers were the subset that reported they were engaged in direct practice, supervision or agency-based training, the last category representing less than 1 percent. It is critical to note that these numbers only represent NASW members and that the universe of social workers is two to three times larger. Comparing to Census Bureau numbers, NASW has between 30 to 50 percent of the total number of trained social workers. Therefore, the numbers in the tables significantly understate the total numbers of trained social workers.

Psychiatric Nursing

The psychiatric nursing section of this chapter utilizes data from a 1994 survey of Certified Specialists in Psychiatric-Mental Health Nursing, conducted by the Society for Education and Research in Psychiatric-Mental Health Nursing.

Survey design.--All psychiatric clinical nurse specialists certified by the American Nurses Association in Spring of 1994 were included in the population for this survey. The Society for Education and Research in Psychiatric-Mental Health Nursing (SERPN) conducted the survey using a mailing list of clinical specialists in psychiatric and mental health nursing provided by the American Nurses Association. The purpose of the study was to provide an up to date database on the advanced practice of psychiatric mental health nursing to inform ongoing health care reform issues. A monograph of the SERPN study and results will be available in the Fall of 1996 for purchase from the SERPN National Office, 437 Twin Bay Drive, Pensacola, Fl. 32534 (904)-474-9024.

Sampling frame and sample size.--The population of Certified Specialists in Psychiatric Mental Health Nursing included 6,090 individuals certified in the Spring of 1994 as either adult and/or child specialists. The mailing list did not allow for separation of specialists into adult and child categories; the population as a whole was used as a basis for a 20 percent random sample. A sample of 1,211 served as the specialists included in this study.

Sample design.--This study used a simple random sample. All certified psychiatric clinical nurse specialists were included in the universe of the study.

Data Collection and Instrument.--SERPN's Advanced Practice Project Taskforce was responsible for the development and implementation of this study. The survey was developed to include issues of importance to psychiatric nursing as well as to collect baseline data based on CMHS' draft core human resources minimum data set. Surveys which influenced the development of this tool included: ANA (1986)

Survey of Psychiatric Clinical Nurse Specialists; Merwin E., and Fox, J. (1989) Survey of Psychiatric Clinical Nurse Specialists; Merwin E. et al (1991) Survey of Advanced Practice Nurses in VA; and the Center for Mental Health Services' Ad Hoc Human Resource Data Group, Draft Core Minimum Human Resource Data Set. The survey instrument consisted of items from prior surveys, the minimum data set, and original questions developed for this survey. The 16 page survey tool included fifty questions including several open ended questions.

The validity of the survey was established through a review of the questions by content experts representing the four psychiatric nursing organization represented in the Coalition of Psychiatric Nursing Organizations (COPNO) including the Association for Child and Adolescent Psychiatric Nursing, the American Psychiatric Nurses Association, the American Nurses Association, and the Society for Education and Research in Psychiatric Mental Health Nursing. Representatives from the four psychiatric nursing organizations met to review the instrument and made recommendations which improved the survey tool. The survey and procedures for data collection were formally endorsed by the COPNO representatives.

A response rate of 55 percent (675) was achieved following three mailings. A complete survey instrument was sent out in the first two mailings. The final mailing was a shortened form of the most important questions. The initial mailing took place in the Summer of 1994; the first follow-up took place in Fall, 1994. The final mailing took place in March of 1995.

Estimation.--The following weighting procedures were employed to derive population estimates. The population of Certified Specialists in Psychiatric Mental Health Nursing was 6,090 in Spring,1994. This population count served as the basis for estimation. Operationally the formula (6,090 population/675 responses) was used to generate a weight of 9.02. To establish a population estimate of clinically trained individuals who were not retired from the workforce the number of retired individuals in the population was identified. There were 10 retired, non-working respondents; they were deleted from the responses resulting in 665 respondents. A population estimate of clinically trained individuals who are not retired was determined to be 6,000 (6090-[9.02*10]), with a weight of 6000/665=9.02 For clinically trained individuals 23 were unemployed; it was estimated that there were 207 unemployed with in the population [6000-(9.02*23)] resulting in a population estimate of 5,793. Additionally 4 non-working students and 16 individuals for whom their working status was unknown were eliminated from the respondents for a final respondent number of 622 clinically trained and working individuals. The population estimate of clinically trained and working specialists in the population is estimated to be 5,610 (622*9.02).

Of the 622 clinically trained individuals 530 were clinically active for a clinically active population of 4,780 (530*9.02). Clinically active was defined as providing either direct patient care or providing clinical supervision of direct patient care; thus 85 percent of clinically trained individuals provide direct care. It is noted that the direct care may be provided in any of the individual's work settings.

Therefore the base numbers of 6,000 trained, 5,610 trained and working, and 4,780 clinically active specialists were used in these tables. Missing values on age (13), race (15), and primary setting (13) were spread across categories in proportion to frequency of respondents to maintain a constant base number for the tables. For example, the 13 observations who were missing information for primary setting, when weighted resulted in 117 observations missing for primary setting. These were distributed according to percentages of respondents working in each setting; 29 percent of respondents reported working in hospitals so 34 (29 percent) of 117 missing respondents were classified as working in hospitals.

Limitations.--A higher than 55 percent sample response rate would improve the population estimates generated. An assumption is made that the 45 percent of non-responders is similar to those who did respond. This assumption cannot be tested, therefore this response rate remains a limitation.

There were few missing values for most variables reported in this chapter. Exceptions were the variables used to estimate types of work activities of nurse specialists. The item including these variables was not included in the shorter version of the survey used in the final mailing and therefore is missing for responders to the last mailing. Only 387 (62 percent) of the respondents (387/622) have data available regarding types of work activities. In addition the questions which sought information related to this item were considered confusing to participants. Extensive data cleaning was necessary to obtain useable responses. For this analysis all 387 respondents were used for analyses since the variable was constructed only to reflect the participation in a specific work activity in any of one's work settings. However about 15-20 percent of cases would not have reliable responses if specific numbers of hours in work activities needed to be defined. A different set of variables was available to determine which of the clinically trained nurses were clinically active (in any position); 85 percent were clinically active. This differs from the 94 percent of nurses providing direct patient care as a work activity based on only the 387 respondents due to a difference of 235 respondents used for the creation of the two variables.

Clinical Mental Health Counseling

Clinical Mental Health Counselors may be defined in a number of ways. The purpose of this report is to estimate the number of available counselors who have the training necessary to provide independent or team treatment of populations in need of therapeutic mental health intervention and prevention. Sources used in calculations are U.S. Government figures; data obtained from a 1995 comprehensive survey of counselor practitioners completed for the American Counseling Association (ACA); ACA 1996 membership data; database queries of the National Board for Certified Counselors, Inc. (NBCC); the NBCC Clinical Mental Health Counselor Academy; and *Counselor Preparation 1993-1995*, by Hollis and Wantz.

Most figures reflect a conservative estimate based upon membership, State licensure, national certification and 1990 Census data. These data, both estimated and actual, will serve as a baseline delineator for more systematic collection. The collection of these data has pointed out the immediate need for the counseling profession to collect systematic and equivalent data with other mental health professions.

Marriage and Family Therapy

Data Collection.--The data for marriage and family therapy were collected from several sources. These are the Marriage and Family Therapist Practice Patterns Survey, the AAMFT Membership Database, the Annual Report for Accredited Programs submitted to the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), and data collected by AAMFT from State marriage and family therapy regulatory boards on the number of licensed or certified marriage and family therapists.

The count of marriage and family therapists for each State, and the U.S. total in table 10.3 was derived from data collected by AAMFT in 1995 from State marriage and family therapy regulatory boards on the number of licensed or certified marriage and family therapists. For those States that did not regulate marriage and family therapists in 1995, the count of Clinical Members from the AAMFT Membership Database was used.

The count for the U.S. total (46,227) from table 10.3 was used for tables 10.1, 10.2, 10.4, 10.5, 10.6, and 10.7, with the data on the details of these tables coming from the Marriage and Family Therapist Practice Patterns Survey, conducted by William J. Doherty of the Family Social Science Department of the University of Minnesota in the Summer and Fall of 1994, and reported by Doherty and Simmons (1996).

The data for table 10.8 are from the Annual Report for Accredited Programs, submitted to the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), and the count of Associate Members (post-degree supervision students in other accredited programs), and Student Members (pre-degree students in other accredited programs) from AAMFT Membership Database.

The Marriage and Family Therapist Practice Patterns Survey.--The Marriage and Family Therapist Practice Patterns Survey was commissioned by the American Association for Marriage and Family Therapy (AAMFT) Research and Education Foundation, and built upon an investigation of the clinical practice patterns of marriage and family therapists in Minnesota, which was published by Doherty and Simmons (1995). The Marriage and Family Therapist Practice Patterns Survey consisted of three parts. Part I asked general questions about the respondent's demographic and educational background and practice setting, along with a series of questions about current caseload, types of problems seen, and diagnoses used, types of therapy employed (individual, couple, family, group), areas of competency, and a variety of questions about reimbursement. Part I was intended to be completed with minimal reference to clinical records, and for some of the questions - such as frequency of presenting problems and diagnosis - the therapist was expected to estimate answers.

Part II of the survey asked for detailed information on the therapist's three most recently completed cases. A completed case was defined as one "where therapy has ended, at least for now, and no specific follow-up is scheduled." One-session assessments and consultations were excluded. Detailed information on presenting problems was sought, as well as diagnosis assigned, frequency of sessions, number of sessions, method of payment, presence of chronic illness or other health care problems, and other case information. A series of questions was also posed regarding the therapists' perceptions of the outcomes of treatment for a variety of areas of functional change in clients' lives. Data were requested on up to eight participating clients for each case. Client demographics were reported (age, gender, racial or ethnic background, education), as were client relationships (marital or committed partners, parent-child relationships). One item in Part II required coding of presenting problems, which therapists were asked to list in their own words. Therapists' responses were coded into more than 30 non-overlapping categories.

Part III, completed anonymously by clients, included questions on their satisfaction with the services they received, and with the functional outcomes of their treatment. For cases which primarily involved the treatment of a child, parents were asked to complete a child version of the outcome questionnaire. Therapists answered the same outcome questions that clients did. The client satisfaction measure was adapted from Attkisson and Zwick's eight-item Client Satisfaction Questionnaire (1982), an instrument with established reliability and validity in the area of psychotherapy research. It uses a 4-point Likert scale with a range from "very dissatisfied" to "very satisfied". The client outcome measure, the Client Change Questionnaire, was developed for this study. It consists of nine health transition questions in which clients are asked to compare their current level of functioning in various life domains (such as overall health, emotional health, work, and family), with their level of functioning prior to starting therapy (Feinstein 1987). Each item included a 5-point Likert response scale ranging from "much worse" to "much better".

In August and September 1994, AAMFT clinical members in the participating States received a joint letter from their State leadership and volunteer coordinator outlining the challenges facing the practice and profession of marriage and family therapy at both the Federal and State levels. That letter also advised members about the practice patterns survey and encouraged maximum participation in the study.

The participating States were selected from those State divisions of AAMFT that volunteered in response to a Request for Proposals distributed by the AAMFT Research and Education Foundation to all of its State and provincial divisions in the United States and Canada. The fifteen participating States are: Alabama, California, Colorado, Florida, Illinois, Massachusetts, Michigan, Mississippi, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Texas, and Wyoming. A random sample of 1,716 clinical members was drawn from a population of more than 8,600 clinical members in the 15 States. States with fewer AAMFT members were oversampled relative to larger States, in order to provide State-level data as well as national data. Throughout the data collection period, therapists received letters from the volunteer coordinator and divisional leaders in each State encouraging them to participate in the study.

In September 1994, each therapist received a letter of invitation to participate in the study, along with the survey, from William J. Doherty, Ph.D., and Deborah S. Simmons at the University of Minnesota. A stamped return envelope, addressed to the volunteer coordinator in each State, was also enclosed. In addition, each member of the sample received stamped return envelopes, addressed to the researchers at the Family Social Science Department of the University of Minnesota, to be sent to clients whose cases were being reported on. Therapists were asked to complete and return the survey within 3 weeks of receiving it.

Volunteers in each State contacted the therapists by telephone within two weeks after the survey had been mailed, to ensure that they had received the survey and to answer any questions. Of the 1,716 therapists in the sample, 178 were ineligible because they were deceased, had moved out of State, were no longer practicing marriage and family therapy, or were ill.

After 3 weeks, many of the volunteer coordinators contacted nonrespondents by letter, postcard, or telephone and often sent a second copy of the survey. Another round of follow-up phone calls was made by the volunteers in each State within a week after the reminder contact had been made to answer nonrespondents' questions and urge therapists to participate in the study. Finally, after the surveys were returned, many therapists in the sample received a telephone call from the volunteer coordinator to clarify responses or to request missing data.

The final response rate was 34.3 percent, or 526 of the eligible 1,538 therapists. This response rate is typical for questionnaires sent to professionals, and varied considerably among the States. The principle reason given for nonparticpation was being too busy to complete the lengthy questionnaire. All of the responding therapists completed Part I of the survey and 53.8 percent completed Part II, providing data on 850 cases. The response rate for clients was 62.3 percent. A State by State comparison of the major findings showed a pattern of similarity, irrespective of State response rate. The findings are quite similar to those of the Minnesota study, which had an 80 percent response rate.

The AAMFT Membership Database.--Data for the AAMFT Membership Database are collected from both applications for new membership and from annual membership renewal forms. As the data are collected, they are entered into the membership data base on a continuous basis.

Members of AAMFT are coded in the membership data base according to their category of membership, as follows: clinical membership, associate membership, student membership, and affiliate membership. The definition of each category is as follows:

Clinical Membership - persons who have completed a qualifying graduate degree in marriage and family therapy (or in a related mental health field and a substantially equivalent course of study) from a regionally accredited educational institution, and two years post-degree supervised clinical experience in marriage and family therapy.

Associate Membership - persons who have completed a qualifying graduate degree in marriage and family therapy (or in a related mental health field and a substantially equivalent course of study) from a regionally accredited educational institution, but have not yet completed two years post-degree supervised clinical experience in marriage and family therapy. Associate Membership is limited to five years, since it is anticipated that Associate Members will advance to Clinical Membership.

Student Membership - persons currently enrolled in a qualifying graduate program in marriage and family therapy (or in a related mental health field and a substantially equivalent course of study) in a regionally accredited educational institution or a COMAFTE-accredited graduate program or post-degree institute. Student Membership is limited to five years, since it is anticipated that Student Members will advance to Associate, then Clinical Membership.

Affiliate Membership - members of allied professions, and other persons interested in marriage and family therapy. Affiliate Members come from related fields such as family medicine, family mediation, family policy and research. The Affiliate Membership is a non-credentialing, non-evaluative and non-voting membership category.

COAMFTE Annual Report for Accredited Programs.--Annually the programs accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) submit standard written reports concerning compliance with the accreditation standards, including, among other data, a listing of all students currently enrolled in the marriage and family therapy program. Data reported include the student's name, year in program, gender, ethnicity and academic background. Data on the number of students in each program were collated for table 10.8 from the most recent annual report of the accredited programs, which was either 1995 or 1994.

School Psychology

Sources and Qualifications of the Data.--Who is counted as a school psychologist? In most States, professional school psychologists are certified to practice within school settings and non-school settings by each State's department of education. Every State has a certification for school Psychology; however, some States use more than one title for professionals qualified to be called school psychologists. State-by-State standards for certification and licensure are published by the National Association of School Psychologists (1995). Forty-seven States (including the District of Columbia), require academic standards consistent with the NCSP. One State, Hawaii, requires a doctorate to use the title. Three States require a master's degree with unspecified credit hours. All States require a supervised internship. Students graduating from NASP/NCATE approved programs meet the NCSP credentialing standard, and may receive the NCSP upon receiving a satisfactory score on the national examination. States which have upgraded their standards over the past ten years have "grandparented" persons who do not meet the academic requirements of a 60 credit hour master's or specialist degree, a 1,200 hour supervised internship, and other requirements noted in the body of the report.

Data Base.--The data in this report is based upon data gathered yearly by the U.S. Department of Education. The data reported by the U. S. Department of Education (USDOE) is found in its *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act.* These data are required to be reported by each State education agency (SEA) which, in turn has data reports from each local education agency (LEA). These data are required to be gathered to assure that each school system is maintaining its effort to provide a "free and appropriate public education" to all children who are disabled and in need of special education and related services. These data use the following categories for special education teachers and other personnel (i.e. school psychologist), employed to provide services to students with disabilities.

- Employed/Fully Certified or Licensed: -The number of FTE personnel employed or contracted who had appropriate State Certification or licensure for the position held.

- Employed/ Not Fully Certified: the number of FTE personnel employed or contracted who were employed in an emergency, provisional, or other basis if they did not hold standard State Certification or licensure for the position to which they were assigned.

The data reported from each State education agency only lists as school psychologists persons who are State certified or licensed. In fact it considers persons provisionally providing school psychological services under the category of unfilled positions. Therefore, the supposition that these USDOE data accurately reflect a consistent professional standard can be assumed. The data were corrected for two States, Missouri and Arkansas, where the USDOE reported data from those two States seriously underestimated the number of actual school psychologists practicing by a total of 140. This correction

was based upon NASP membership data (for 1993) and personal contacts with professional leadership in both States.

NASP Membership Data.--NASP total membership was 19,148 members, as of July 1996. NASP has several membership categories of which three are critical to this report: Regular; Student and; Retired. These categories are defined as follows:

Regular membership in NASP requires that the applicant certify that they are:

1. Currently credentialed and working as a school psychologist;
2. Certified and working as a supervisor or consultant in school psychology;
3. Primarily engaged in the training of school psychologists at a college or university.

Excluding international membership, NASP regular membership as of July 1996 was 14,006. Student membership includes students enrolled half-time or more leading to an advanced degree or post masters certificate in school psychology or doctorate, as verified by their program advisor. Student membership as of July 1996 was 4,290.

Retired membership requires the retired school psychologist to have been a member for five consecutive years and retired from remunerative professional activity. Retired membership as of July 1996 was 609. It is presumed that these retired members are not clinically active in the profession of school psychology.

All regular and student members and all those holding an NCSP must agree to abide by the NASP professional standards and code of ethics published by NASP. By 1991, nearly 15,000 school psychologists received the NCSP credential.

There are approximately 2,300 school psychologists certified as NCSP who are not members of NASP. As noted above, most State certification systems require the equivalent academic requirements of NCSP. Several States will now accept NCSP as the necessary documentation for State certification.

Data reported in Tables.--Each year NASP requests that membership respond to a set of computer recorded demographic questions including: age; sex; ethnicity; position; employment setting; salary; student service ratio; and years of experience. There is no obligation to complete these data requests, and more than 10 percent ignore all requests. Each of the 13 items is responded to at different rates and, therefore, the accuracy of the data is unknown.

For example only 12,006 responded to "employment setting" and fewer, (9,634) responded to "years of experience." However, when the responses are compared to mailed, random surveys carried out over the years, (Fagan 1988; Reshly and Wilson 1992), the patterns are quite similar, giving a degree of assurance that these data can be applied to the general population of certified, employed, clinically active school psychologists reported by the U. S. Department of Education.

To determine the number of "clinically trained" reported in table 10.1, the authors used the ratio of NASP members who are certified, including those who are university trainers and administrators, to those who are not so specified. This produced a ratio of one clinically active to 1.07 clinically trained. The number reported by the USDOE was then multiplied by that ratio to secure the total of 21,693. The same ratio was applied to USDOE data from 1988 and 1992 for table 10.1 to provide some longitudinal reference consistent with other professions. It is important to note that the last year for data from the USDOE was 1993, as reported in the 1995 *Report to Congress* . The 18th USDOE *Report to Congress* is expected to be published in October 1996, containing data on school psychology and other related service professions for the school year ending June 1994.

The data in table 10.2, 10.4, 10.6, and, 10.7 are based upon ratios and percentages reported by NASP members' responses to the membership questionnaire applied, when appropriate, to the USDOE adjusted number. The data in table 10.3 is the State-by-State data reported for 1993, which is the best data that exists for school psychologists who are "clinically active" at the present time. Table 10.5 is based on the assumption that most school psychologists are limited to a single employment setting. This is most generally the case. Since about 10 percent of school psychologists are licensed to practice outside the school setting, there may be a second setting for these professionals. However, NASP does not request any data on this factor. Therefore, "NA" is noted both for "two or more settings," and the "part time" category.

Table 10.8 represents the number of school psychology students in programs approved by NASPNCATE as reported by the Director of Certification from the NASP database.

Qualifications of the Data.--The USDOE data is a record of State certified or licensed school psychologists reported for 1993, who serve children with disabilities in schools, or school-related settings. These reported data are based upon "full time equivalents," rather than individuals. Therefore there may be more individuals certified than this number. Furthermore, the data do not exclude some contracted persons. The data also may exclude school psychologists who are employed who do not provide services to children with disabilities under IDEA. For example, there are school psychologists employed in Head Start programs which may be administered by another State agency. School psychologists serving under Part H the "infant and toddlers" disability program may not be included in this USDOE count. Finally, many States have school psychologists employed under State "pupil services" laws, and under Title I of the Improving America's Schools Act of 1994.

Without referencing the USDOE data, Fagan and Sachs-Wise (1994) report a "consensus figure" of between 20,000 and 22,000 school psychologists. It may be that these numbers underrepresent the total clinically active population (and, thus, clinically trained) of school psychologists by as much as 5-10 percent, but there is no reliable way to make this determination.

Adjusting the USDOE data required the application of membership percentages to those data. Since the membership data is consistent with the data on a random sample of 6,470 school psychologists (Reshly and Wilson 1992), it may be assumed that the membership data can be generalized to the USDOE data without any known bias. For example, Reshly and Wilson showed that 86 percent of school psychologists worked for school systems, whereas 4 percent were in private practice, frequently serving school systems. One percent reported working in hospitals, one percent in universities, one percent in clinics, one percent in residential settings, and five percent in the category "other." The USDOE data would suggest that either a higher percentage of school psychologists are employed by the schools, or that the "full-time-equivalent" factor plays a larger role than the authors estimate.

The growth in the USDOE numbers over the five year data span of 1988 through 1993 is not dramatic, and suggests a stable number. The number of elementary and secondary students may be growing, thus causing a shift in the ratio of professionals to population. Table 10.3 should be read with extreme caution. It is erroneous to perceive the State population as the potential service population for school psychologists. School psychologists serve children ages 5 through 18, in general, and a subset of children ages 0 through 21, who have, or are at risk of having, a disability. There are about 45 million children ages 6-21 or about 16 percent of the total population (USDOE 1995). Data for ages 6-21 for each State were not available to the authors at the time this report was drafted.

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